Base Load Power Hub (BLPH)

PROTECTION SETTING REPORT

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Revision / Change Log

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1 HIGH VOLTAGE SWITCHGEAR "SG-100D1"

Column A1

To See Attachment Protection Report : "SG-100D1_6,6kV_A1_Electrolyser Feeder A-20000"

Column A2

To See Attachment Protection Report : "SG-100D1_6,6kV_A2_Transformer Feeder TR-200ED1"

Column A3

To See Attachment Protection Report : "SG-100D1_6,6kV_A3_BESS Feeder A-85000"

Column A4

To See Attachment Protection Report : "SG-100D1_6,6kV_A4_Transformer Feeder TR-200DE1"

Column A6

To See Attachment Protection Report : "SG-100D1_6,6kV_A6_Incoming Feeder TR-100AD1"

Column A7

To See Attachment Protection Report : "SG-100D1_6,6kV_A7_Fuell Cell A-80000"

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2 LOW VOLTAGE SWITCHGEAR "SG-200N1"

Column A1 (Incoming)

To See Attachment Protection Report : "SG-200N1_400V_A1_Incoming Trasformer"

Settings

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
REX640_A1						
IED Configuration						
HW Configuration						
Slot B (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot C (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot D (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input inversion						
Input 1 inversion		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
POSITION		intermediate				
SPCGAPC1: 1						
SPC(1)						
TRIG 1		False				
TRIG 2		False				
TRIG 3		False				
TRIG 4		False				
TRIG 5		False				
TRIG 6		False				
TRIG 7		False				
TRIG 8		False				
TRIG 9		False				
TRIG 10		False				
TRIG 11		False				
TRIG 12		False				
TRIG 13		False				
TRIG 14		False				
TRIG 15		False				
TRIG 16		False				
Measurements						
PEMMXU1: 1						
P,E(1)						
S-kVA:1		0,0	kVA	-999999,9	999999,9	
P-kW:1		0,0	kW	-999999,9	999999,9	
Q-kVAr:1		0,0	kVAr	-999999,9	999999,9	
PF:1		0,00		-1,00	1,00	
CMMXU1: 1						
3I(1)						
IL1-A:1		0,00	xIn	0,00	40,00	
IL2-A:1		0,00	xIn	0,00	40,00	
IL3-A:1		0,00	xIn	0,00	40,00	
RESCMMXU1: 1						
Io(1)						
Io-A:1		0,00	xIn	0,00	40,00	
RESVMMXU1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Uo(1)						
Uo-kV:1		0,00	xUn	0,00	4,00	
VMMXU1: 1						
3U(1)						
U12-kV:1		0,00	xUn	0,00	4,00	
U23-kV:1		0,00	xUn	0,00	4,00	
U31-kV:1		0,00	xUn	0,00	4,00	
UL1-kV:1		0,00	xUn	0,00	5,00	
UL2-kV:1		0,00	xUn	0,00	5,00	
UL3-kV:1		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
U12-kV:2		0,00	xUn	0,00	4,00	
U23-kV:2		0,00	xUn	0,00	4,00	
U31-kV:2		0,00	xUn	0,00	4,00	
UL1-kV:2		0,00	xUn	0,00	5,00	
UL2-kV:2		0,00	xUn	0,00	5,00	
UL3-kV:2		0,00	xUn	0,00	5,00	
FMMXU1: 1						
f(1)						
f-Hz:1		50,00	Hz	35,00	75,00	
CSMSQI1: 1						
I1,I2,I0(1)						
NgSeq-A:1		0,00	xIn	0,00	40,00	
PsSeq-A:1		0,00	xIn	0,00	40,00	
ZrSeq-A:1		0,00	xIn	0,00	40,00	
VSMSQI1: 1						
U1,U2,U0(1)						
NgSeq-kV:1		0,00	xUn	0,00	4,00	
PsSeq-kV:1		0,00	xUn	0,00	4,00	
ZrSeq-kV:1		0,00	xUn	0,00	4,00	
Disturbance records						
Disturbance recorder: 0						
Disturbance recorder						
Number of recordings		0		0	100	
Rem. amount of rec.		0		0	100	
Rec. memory used		0	%	0	100	
Trig recording		Cancel				
Time to trigger		0	s	0	604800	
Configuration						
Disturbance recorder: 0						
Disturbance recorder						
General						
Operation		on				
Record length		50	cycles	10	500	
Pre-trg length		50	%	0	100	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Overwrite				
Exclusion time		0	ms	0	1000000	
Storage rate		32 samples / cycle				
Periodic trig time		0	s	0	604800	
Stor. mode periodic		Waveform				
Stor. mode manual		Waveform				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Operation		on				
Select timeout		30000	ms	10000	300000	
Pulse length		200	ms	10	60000	
Operation counter		0		0	99999	
Control model		sbo-with-enhanced-security				
Adaptive pulse		True				
Event delay		200	ms	0	10000	
Operation timeout		500	ms	10	6000000	
Interlocking Pls Len		2	s	1	10	
Identification		CBXCBR1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
General: 0						
Control						
General						
LR control		Binary input				
Station authority		L,R				
Control mode		On				
DCSXSWI1: 1						
I<->O DC(1)						
Event delay		30000	ms	0	60000	
Identification		DCSXSWI1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
ESSXSWI1: 1						
I<->O ES(1)						
Event delay		30000	ms	0	60000	
Identification		ESSXSWI1 switch position			255 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
System						
Control: 0						
Control						
Rated frequency		50Hz				
Phase rotation		ABC				
Blocking mode		Freeze timer				
Bay name		REX640_A1			20 characters	
IDMT Sat point		50	I/I>	10	50	
Frequency adaptivity		Disable				
SMV Max Delay		3/3 ms				
Test mode selection		Local				
HMI						
EIHMI1: 1						
EIHMI1						
Backlight brightness		100	%	1	100	
Enable USB access		No				
Enable HMI service port		Yes				
Communication						
Ethernet						
Rate Limiter: 1						
Rate Limiter						
Rate limiter						
Rate limit ctrl		False				
RCHLCCH1: 1						
RCHLCCH1						
Redundancy						
Redundant mode		None				
Filter						
Filter mode A_B		Off				
Rate limiter						
GOOSE rate limit A_B		10,000		0,512	90,000	
SMV rate limit A_B		70,000		0,512	90,000	
Def. rate limit A_B		8,000		0,512	90,000	
SCHLCCH1: 1						
SCHLCCH1						
Port modes						
Port mode X1		On				
Filter						
Filter mode X1		Off				
Rate limiter						
GOOSE rate limit X1		10,000		0,512	90,000	
SMV rate limit X1		70,000		0,512	90,000	
Def. rate limit X1		8,000		0,512	90,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SCHLCCH2: 2						
SCHLCCH2						
Port modes						
Port mode X2		On				
Filter						
Filter mode X2		Off				
Rate limiter						
GOOSE rate limit X2		10,000		0,512	90,000	
SMV rate limit X2		70,000		0,512	90,000	
Def. rate limit X2		8,000		0,512	90,000	
SCHLCCH3: 3						
SCHLCCH3						
Port modes						
Port mode X3		On				
Filter						
Filter mode X3		Off				
Rate limiter						
GOOSE rate limit X3		10,000		0,512	90,000	
SMV rate limit X3		70,000		0,512	90,000	
Def. rate limit X3		8,000		0,512	90,000	
Network1: 1						
Network1						
Network1 address						
IP address		192.168.10.5				
Subnet mask		255.255.255.224				
Default gateway		192.168.10.30				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
Network2: 2						
Network2						
Network2 address						
Enable		False				
IP address		192.168.3.10				
Subnet mask		255.255.255.0				
Default gateway		0.0.0.0			16 characters	
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
HMI: 1						
HMI						
HMI address						
IP address		192.168.0.254				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Protocols						
GSELPRT1: 1						
GSE(1)						
GOOSE						
Change det. interval		500	ms	50	1000	
MMSLPRT1: 1						
MMS(1)						
MMS						
Unit mode		Nominal				
Network1						
MMS		On				
HMI port						
MMS		On				
FTPLPRT1: 1						
FTPLPRT1						
Network1						
FTP		Secure				
HMI port						
FTP		Secure				
HTTPLPRT1: 1						
HTTPLPRT1						
Network1						
HTTPS		On				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Network1						
Modbus		On				
MBSLPRT2: 2						
MBSLPRT2						
Modbus (2)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Analog inputs						
Current (3I): 1						
Current (3I)						
Current input type		Current trafo				
Primary current		400,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		False				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Current (Io): 1						
Current (Io)						
Current input type		Current trafo				
Primary current		100,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		False				
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage (3U): 1						
Voltage (3U)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (3UB): 2						
Voltage (3UB)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (Uo): 1						
Voltage (Uo)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Voltage (UoB): 2						
Voltage (UoB)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Measurements						
CMMXU1: 1						
3I(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
A high high limit		1,40	xIn	0,00	40,00	
A high limit		1,20	xIn	0,00	40,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A low limit		0,00	xIn	0,00	40,00	
A low low limit		0,00	xIn	0,00	40,00	
A deadband		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESCMMXU1: 1						
Io(1)						
Operation		on				
Measurement mode		DFT				
A Hi high limit res		0,20	xIn	0,00	40,00	
A high limit res		0,05	xIn	0,00	40,00	
A deadband res		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESVMMXU1: 1						
Uo(1)						
Operation		on				
Measurement mode		DFT				
V Hi high limit res		0,20	xUn	0,00	4,00	
V high limit res		0,05	xUn	0,00	4,00	
V deadband res		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU1: 1						
3U(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		3 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,20	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU2: 2						
3U(2)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,00	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time		0	ms	0	1800000	
FMMXU1: 1						
f(1)						
Operation		on				
F high high limit		60,00	Hz	35,00	75,00	
F high limit		55,00	Hz	35,00	75,00	
F low limit		45,00	Hz	35,00	75,00	
F low low limit		40,00	Hz	35,00	75,00	
F deadband		1000		100	100000	
Def frequency Sel		Nominal				
PEMMXU1: 1						
P,E(1)						
Operation		on				
Power unit Mult		k				
Energy unit Mult		k				
Active power Dir		Forward				
Reactive power Dir		Forward				
Power deadband		10000		1000	10000	
Forward Wh Initial		0		0	999999999	
Reverse Wh Initial		0		0	999999999	
Forward VArh Initial		0		0	999999999	
Reverse VArh Initial		0		0	999999999	
Measurement mode		PhsA, PhsB, PhsC				
Pulse quantity		100000	Wh/VArh	1	10000000	
Pulse on time		1,000	s	0,050	60,000	
Pulse off time		0,500	s	0,050	60,000	
CSMSQI1: 1						
I1,I2,I0(1)						
Operation		on				
Ps Seq A Hi high Lim		1,40	xIn	0,00	40,00	
Ps Seq A high limit		1,20	xIn	0,00	40,00	
Ps Seq A low limit		0,00	xIn	0,00	40,00	
Ps Seq A low low Lim		0,00	xIn	0,00	40,00	
Ps Seq A deadband		2500		100	100000	
Ng Seq A Hi high Lim		0,20	xIn	0,00	40,00	
Ng Seq A High limit		0,05	xIn	0,00	40,00	
Ng Seq A low limit		0,00	xIn	0,00	40,00	
Ng Seq A low low Lim		0,00	xIn	0,00	40,00	
Ng Seq A deadband		2500		100	100000	
Zro A Hi high Lim		0,20	xIn	0,00	40,00	
Zro A High limit		0,05	xIn	0,00	40,00	
Zro A low limit		0,00	xIn	0,00	40,00	
Zro A low low Lim		0,00	xIn	0,00	40,00	
Zro A deadband		2500		100	100000	
Ps Seq A on delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Ps Seq A off delay time		0	ms	0	1800000	
Ng Seq A on delay time		0	ms	0	1800000	
Ng Seq A off delay time		0	ms	0	1800000	
Zro A on delay time		0	ms	0	1800000	
Zro A off delay time		0	ms	0	1800000	
VSMSQI1: 1						
U1,U2,U0(1)						
Operation		on				
Ps Seq V Hi high Lim		1,40	xUn	0,00	4,00	
Ps Seq V high limit		1,20	xUn	0,00	4,00	
Ps Seq V low limit		0,00	xUn	0,00	4,00	
Ps Seq V low low Lim		0,00	xUn	0,00	4,00	
Ps Seq V deadband		10000		100	100000	
Ng Seq V Hi high Lim		0,20	xUn	0,00	4,00	
Ng Seq V High limit		0,05	xUn	0,00	4,00	
Ng Seq V low limit		0,00	xUn	0,00	4,00	
Ng Seq V low low Lim		0,00	xUn	0,00	4,00	
Ng Seq V deadband		10000		100	100000	
Zro V Hi high Lim		0,20	xUn	0,00	4,00	
Zro V High limit		0,05	xUn	0,00	4,00	
Zro V low limit		0,00	xUn	0,00	4,00	
Zro V low low Lim		0,00	xUn	0,00	4,00	
Zro V deadband		10000		100	100000	
Ps Seq V on delay time		0	ms	0	1800000	
Ps Seq V off delay time		0	ms	0	1800000	
Ng Seq V on delay time		0	ms	0	1800000	
Ng Seq V off delay time		0	ms	0	1800000	
Zro V on delay time		0	ms	0	1800000	
Zro V off delay time		0	ms	0	1800000	
Demand metering: 0						
Demand metering						
Demand interval		1 minute				
A demand Av mode		Linear				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Operation		on				
Trip pulse time		250	ms	20	60000	
Trip output mode		Non-latched				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Operation		on				
Acc stop current		10,00	A	5,00	500,00	
Open alarm time		40	ms	0	200	
Close alarm time		40	ms	0	200	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Opening time Cor		10	ms	-100	100	
Closing time Cor		10	ms	-100	100	
Spring charge time		15	s	0	60	
Counter initial Val		0		0	99999	
Alarm Op number		200		0	99999	
Lockout Op number		300		0	99999	
Current exponent		2,00		0,00	5,00	
Difference Cor time		5	ms	-10	10	
Alm Acc currents Pwr		2500,00		0,00	20000,00	
LO Acc currents Pwr		2500,00		0,00	20000,00	
Ini Acc currents Pwr		0,00		0,00	20000,00	
Initial CB Rmn life		5000		0	99999	
Rated Op current		1000,00	A	100,00	6300,00	
Rated fault current		5000,00	A	500,00	99999,00	
Op number rated		10000		1	99999	
Op number fault		1000		1	10000	
Life alarm level		500		0	99999	
Pressure alarm time		10	ms	0	60000	
Pres lockout time		10	ms	0	60000	
Inactive Alm days		2000		0	9999	
Ini inactive days		0		0	9999	
Inactive Alm hours		0	h	0	23	
Travel time Clc mode		From Pos to Pos				
Supervision						
TCSSCBR1: 1						
TCS(1)						
Operation		on				
Operate delay time		3000	ms	1000	300000	
Reset delay time		1000	ms	1000	60000	
CCSPVC1: 1						
MCS 3I(1)						
Operation		on				
Start value		0,05	xIn	0,05	0,50	
Max operate current		1,50	xIn	1,00	5,00	
SEQSPVC1: 1						
FUSEF(1)						
Operation		off				
Neg Seq current Lev		0,03	xIn	0,03	0,20	
Neg Seq voltage Lev		0,10	xUn	0,03	0,20	
Change rate enable		False				
Min Op voltage delta		0,50	xUn	0,01	1,00	
Min Op current delta		0,10	xIn	0,01	1,00	
Enable seal in		False				
Current dead Lin Val		0,05	xIn	0,05	1,00	
Disturbance recorder						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A1RADR: 1						
A1RADR						
Analog channel 1						
Operation		on				
Channel id text		Analog ch 1 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 2						
Operation		on				
Channel id text		Analog ch 2 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 3						
Operation		on				
Channel id text		Analog ch 3 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 4						
Operation		on				
Channel id text		Analog ch 4 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 5						
Operation		on				
Channel id text		Analog ch 5 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 6						
Operation		on				
Channel id text		Analog ch 6 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 7						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 7 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 8						
Operation		on				
Channel id text		Analog ch 8 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 9						
Operation		on				
Channel id text		Analog ch 9 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 10						
Operation		on				
Channel id text		Analog ch 10 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 11						
Operation		on				
Channel id text		Analog ch 11 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 12						
Operation		on				
Channel id text		Analog ch 12 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
A2RADR: 13						
A2RADR						
Analog channel 13						
Operation		on				
Channel id text		Analog ch 13 input			64 characters	
High trigger level		10,00		0,00	60,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 14						
Operation		on				
Channel id text		Analog ch 14 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 15						
Operation		on				
Channel id text		Analog ch 15 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 16						
Operation		on				
Channel id text		Analog ch 16 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 17						
Operation		on				
Channel id text		Analog ch 17 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 18						
Operation		on				
Channel id text		Analog ch 18 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 19						
Operation		on				
Channel id text		Analog ch 19 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 20						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 20 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 21						
Operation		on				
Channel id text		Analog ch 21 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 22						
Operation		on				
Channel id text		Analog ch 22 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 23						
Operation		on				
Channel id text		Analog ch 23 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 24						
Operation		on				
Channel id text		Analog ch 24 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
B1RBDR: 1						
B1RBDR						
Binary channel 1						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 1 input			64 characters	
Binary channel 2						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 2 input			64 characters	
Binary channel 3						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 3 input			64 characters	
Binary channel 4						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 4 input			64 characters	
Binary channel 5						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 5 input			64 characters	
Binary channel 6						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 6 input			64 characters	
Binary channel 7						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 7 input			64 characters	
Binary channel 8						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 8 input			64 characters	
Binary channel 9						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 9 input			64 characters	
Binary channel 10						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 10 input			64 characters	
Binary channel 11						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 11 input			64 characters	
Binary channel 12						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 12 input			64 characters	
Binary channel 13						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 13 input			64 characters	
Binary channel 14						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 14 input			64 characters	
Binary channel 15						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 15 input			64 characters	
Binary channel 16						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 16 input			64 characters	
Binary channel 17						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 17 input			64 characters	
Binary channel 18						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 18 input			64 characters	
Binary channel 19						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 19 input			64 characters	
Binary channel 20						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 20 input			64 characters	
Binary channel 21						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 21 input			64 characters	
Binary channel 22						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 22 input			64 characters	
Binary channel 23						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 23 input			64 characters	
Binary channel 24						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 24 input			64 characters	
Binary channel 25						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 25 input			64 characters	
Binary channel 26						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 26 input			64 characters	
Binary channel 27						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 27 input			64 characters	
Binary channel 28						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 28 input			64 characters	
Binary channel 29						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 29 input			64 characters	
Binary channel 30						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 30 input			64 characters	
Binary channel 31						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 31 input			64 characters	
Binary channel 32						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 32 input			64 characters	
B2RBDR: 33						
B2RBDR						
Binary channel 33						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 33 input			64 characters	
Binary channel 34						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 34 input			64 characters	
Binary channel 35						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 35 input			64 characters	
Binary channel 36						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 36 input			64 characters	
Binary channel 37						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 37 input			64 characters	
Binary channel 38						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 38 input			64 characters	
Binary channel 39						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 39 input			64 characters	
Binary channel 40						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 40 input			64 characters	
Binary channel 41						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 41 input			64 characters	
Binary channel 42						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 42 input			64 characters	
Binary channel 43						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 43 input			64 characters	
Binary channel 44						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 44 input			64 characters	
Binary channel 45						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 45 input			64 characters	
Binary channel 46						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 46 input			64 characters	
Binary channel 47						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 47 input			64 characters	
Binary channel 48						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 48 input			64 characters	
Binary channel 49						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 49 input			64 characters	
Binary channel 50						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 50 input			64 characters	
Binary channel 51						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 51 input			64 characters	
Binary channel 52						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 52 input			64 characters	
Binary channel 53						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 53 input			64 characters	
Binary channel 54						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 54 input			64 characters	
Binary channel 55						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 55 input			64 characters	
Binary channel 56						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 56 input			64 characters	
Binary channel 57						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 57 input			64 characters	
Binary channel 58						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 58 input			64 characters	
Binary channel 59						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 59 input			64 characters	
Binary channel 60						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 60 input			64 characters	
Binary channel 61						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 61 input			64 characters	
Binary channel 62						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 62 input			64 characters	
Binary channel 63						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 63 input			64 characters	
Binary channel 64						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 64 input			64 characters	
Fault record						
FLTRFRC1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
FLTRFRC1						
Operation		on				
Trig mode		From operate				
A measurement mode		DFT				
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Operation		on				
Mem. warning level		0	%	0	100	
Mem. alarm level		0	%	0	100	
Generic timers						
TONGAPC1: 1						
TON(1)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TONGAPC2: 2						
TON(2)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TOFGAPC1: 1						
TOF(1)						
Off delay time 1		500	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
TOFGAPC2: 2						
TOF(2)						
Off delay time 1		0	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
PTGAPC1: 1						
PT(1)						
Pulse time 1		150	ms	0	3600000	
Pulse time 2		150	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
PTGAPC2: 2						
PT(2)						
Pulse time 1		0	ms	0	3600000	
Pulse time 2		0	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
Generic logic						
SPCGAPC1: 1						
SPC(1)						
General						
Loc Rem restriction		False				
Output 1						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM CLOSE CMD (DIRECT)			64 characters	
Output 2						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM OPEN CMD (DIRECT)			64 characters	
Output 3						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		RESET ALARMS			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 4						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 4			64 characters	
Output 5						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 5			64 characters	
Output 6						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 6			64 characters	
Output 7						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 7			64 characters	
Output 8						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 8			64 characters	
Output 9						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 9			64 characters	
Output 10						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 10			64 characters	
Output 11						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 11			64 characters	
Output 12						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 12			64 characters	
Output 13						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		SPCGAPC1 Output 13			64 characters	
Output 14						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 14			64 characters	
Output 15						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		EMERGENCY			64 characters	
Output 16						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 16			64 characters	
SRGAPC1: 1						
SR(1)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC2: 2						
SR(2)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC3: 3						
SR(3)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MVGAPC1: 1						
MV(1)						
Output 1						
Description		MVGAPC1 Q1			20 characters	
Output 2						
Description		MVGAPC1 Q2			20 characters	
Output 3						
Description		MVGAPC1 Q3			20 characters	
Output 4						
Description		MVGAPC1 Q4			20 characters	
Output 5						
Description		MVGAPC1 Q5			20 characters	
Output 6						
Description		MVGAPC1 Q6			20 characters	
Output 7						
Description		MVGAPC1 Q7			20 characters	
Output 8						
Description		MVGAPC1 Q8			20 characters	
MVGAPC2: 2						
MV(2)						
Output 1						
Description		MVGAPC2 Q1			20 characters	
Output 2						
Description		MVGAPC2 Q2			20 characters	
Output 3						
Description		MVGAPC2 Q3			20 characters	
Output 4						
Description		MVGAPC2 Q4			20 characters	
Output 5						
Description		MVGAPC2 Q5			20 characters	
Output 6						
Description		MVGAPC2 Q6			20 characters	
Output 7						
Description		MVGAPC2 Q7			20 characters	
Output 8						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC2 Q8			20 characters	
MVGAPC3: 3						
MV(3)						
Output 1						
Description		MVGAPC3 Q1			20 characters	
Output 2						
Description		MVGAPC3 Q2			20 characters	
Output 3						
Description		MVGAPC3 Q3			20 characters	
Output 4						
Description		MVGAPC3 Q4			20 characters	
Output 5						
Description		MVGAPC3 Q5			20 characters	
Output 6						
Description		MVGAPC3 Q6			20 characters	
Output 7						
Description		MVGAPC3 Q7			20 characters	
Output 8						
Description		MVGAPC3 Q8			20 characters	
MVGAPC4: 4						
MV(4)						
Output 1						
Description		MVGAPC4 Q1			20 characters	
Output 2						
Description		MVGAPC4 Q2			20 characters	
Output 3						
Description		MVGAPC4 Q3			20 characters	
Output 4						
Description		MVGAPC4 Q4			20 characters	
Output 5						
Description		MVGAPC4 Q5			20 characters	
Output 6						
Description		MVGAPC4 Q6			20 characters	
Output 7						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC4 Q7			20 characters	
Output 8						
Description		MVGAPC4 Q8			20 characters	
General: 0						
General						
Software reset		Cancel				
HMI: 0						
HMI						
FB naming convention		IEC61850				
Backlight timeout		3	min	1	60	
Web HMI mode		On				
HMI timeout		15	min	1	60	
SLD symbol format		IEC				
Setting visibility		Advanced				
User defined name		Disabled				
Time: 0						
Time						
System time						
Time format		24H:MM:SS:MS				
Date format		DD.MM.YYYY				
Date		0			20 characters	
Time		0			20 characters	
Local time offset		0	min	-840	840	
Daylight saving time						
DST in use		True				
DST on time (hours)		2	h	0	23	
DST on time (minutes)		0	min	0	59	
DST on date (day)		1		1	31	
DST on date (month)		May				
DST on day (weekday)		reserved				
DST off time (hours)		2	h	0	23	
DST off time (minutes)		0	min	0	59	
DST off date (day)		25		1	31	
DST off date (month)		September				
DST off day (weekday)		reserved				
DST offset		60	min	-720	720	
SNTP						
IP SNTP primary		192.168.2.166				
IP SNTP secondary		192.168.2.165				
Synchronization						
Synch source		SNTP				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PTP Profile		IEEE C37.238-2011				
PTP domain ID		0		0	255	
PTP priority 1		128		0	255	
PTP priority 2		128		0	255	
PTP Slave-only		False				
Time master mode		Master with finite holdover				
Clear clock list		False				
Time Syn Src Tmm		3	min	1	65535	
Setting group: 0						
Setting group						
SG operation mode		Operator				
Control: 0						
Control						
LHMI						
Close delay mode		Not in use				
Close delay		60	s	5	900	
Breaker operation		After confirmation				
Programmable LEDs: 1						
Programmable LEDs						
General						
Alarm colour		Red				
LED 1						
Alarm mode		Follow-S				
Description		27/59 Voltage Protection			64 characters	
LED 2						
Alarm mode		Follow-S				
Description		Trip Coil Supervision			64 characters	
LED 3						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 4						
Alarm mode		Follow-S				
Description		CB Ready to close			64 characters	
LED 5						
Alarm mode		Follow-S				
Description		50/51 Current Protection			64 characters	
LED 6						
Alarm mode		Follow-S				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		51N/59N Earth Fault Protection			64 characters	
LED 7						
Alarm mode		Follow-S				
Description		Earthing Switch Unlocked			64 characters	
LED 8						
Alarm mode		Follow-S				
Description		CB Truck Unlocked			64 characters	
LED 9						
Alarm mode		Follow-S				
Description		Arc Protection Trip			64 characters	
LED 10						
Alarm mode		Follow-S				
Description		GOOSE Alarm			64 characters	
LED 11						
Alarm mode		Follow-S				
Description		CB Spring			64 characters	
Programmable LEDs: 2						
Programmable LEDs						
LED 12						
Alarm mode		Follow-S				
Description		Space Heater ON			64 characters	
LED 13						
Alarm mode		Follow-S				
Description		Transformer Protections			64 characters	
LED 14						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 15						
Alarm mode		Follow-S				
Description		Trip from LV			64 characters	
LED 16						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 17						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 18						
Alarm mode		Follow-S				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		-			64 characters	
LED 19						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 20						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 21						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 22						
Alarm mode		Follow-S				
Description		-			64 characters	
I/O modules: 0						
I/O modules						
Common settings						
Slot specific threshold		False				
Slot specific hysteresis		False				
Input threshold voltage		16	Vdc	16	176	
Input threshold hysteresis		10	%	10	50	
Input osc. level		30	events/s	2	50	
Input osc. hyst		10	events/s	2	50	
User Activity log: 0						
User Activity log						
Server Settings 1						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address		192.168.2.5				
Server Settings 2						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address2		192.168.2.6				
Authorization: 1						
Authorization						
Security						
Remote Update		Disable				
Passwords						
Remote override		True				
Local override		True				
CAM						
Clear AD userlist		False				
Network1						
FTP write access		On				
MMS write access		On				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
HTTPS write access		On				
HMI						
FTP write access		On				
MMS write access		On				
Monitoring						
Communication						
Ethernet						
RCHLCCH1: 1						
RCHLCCH1						
Activity						
CHLIV_A		False				
REDCHLIV_B		False				
Link statuses						
LNKLIV_A		False				
REDLNKLIV_B		False				
Diagnostics						
A_B						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH1: 1						
SCHLCCH1						
Activity						
CH1LIV		False				
Link statuses						
LNK1LIV		False				
Diagnostics						
X1						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH2: 2						
SCHLCCH2						
Activity						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
CH2LIV		False				
Link statuses						
LNK2LIV		False				
Diagnostics						
X2						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH3: 3						
SCHLCCH3						
Activity						
CH3LIV		False				
Link statuses						
LNK3LIV		False				
Diagnostics						
X3						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
HMILCCH1: 1						
HMILCCH1						
Activity						
HMICHLIV		False				
Link statuses						
HMILNKLIV		Down				
SCHLCCH6: 6						
SCHLCCH6						
Activity						
CH6LIV		False				
Link statuses						
LNK6LIV		False				
Diagnostics						
X6						
Temperature		0,0	°C	-128,0	128,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage		0,000	V	0,000	6,550	
Bias current		0,0	mA	0,0	131,0	
TX power		0,000	mW	0,000	6,550	
RX power		0,000	mW	0,000	6,550	
XCVR detected		False				
RX power alarm		False				
TX power alarm		False				
Voltage alarm		False				
Temperature alarm		False				
Part name		0			20 characters	
Protocols						
MMSLPRT1: 1						
MMS(1)						
CHLIV		False				
Successful conn.		0		0	10000000	
Failed conn.		0		0	10000000	
Concludes		0		0	10000000	
Sent aborts		0		0	10000000	
Recv. aborts		0		0	10000000	
Sent rejects		0		0	10000000	
Recv. requests		0		0	10000000	
Failed requests		0		0	10000000	
Reads		0		0	10000000	
Failed reads		0		0	10000000	
Writes		0		0	10000000	
Failed writes		0		0	10000000	
Reports		0		0	10000000	
Active conn.		0		0	10000000	
Reset counters		False				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT2: 2						
MBSLPRT2						
Modbus (2)						
STATUS		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Rec. memory used		0	%	0	100	
MEM_WARN		False				
MEM_ALARM		False				
I/O status						
Binary input values						
Slot B (BIO): 1						
Slot B (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot C (BIO): 1						
Slot C (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot D (BIO): 1						
Slot D (BIO)						
Input 1		False				
Input 2		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
TCS Input 1		False				
TCS Input 2		False				
Binary output values						
Slot B (BIO): 1						
Slot B (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot C (BIO): 1						
Slot C (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot D (BIO): 1						
Slot D (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot G (PSM): 1						
Slot G (PSM)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Output 9		False				
Output 10		False				
Analog inputs						
Current (3I): 1						
Current (3I)						
ALARM		False				
WARNING		False				
Current (Io): 1						
Current (Io)						
ALARM		False				
WARNING		False				
Voltage (Uo): 1						
Voltage (Uo)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (UoB): 2						
Voltage (UoB)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (3U): 1						
Voltage (3U)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Voltage (3UB): 2						
Voltage (3UB)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Measurements						
CMMXU1: 1						
3I(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
LOW_ALARM		False				
Monitored data						
I_INST_A		0,00	xIn	0,00	40,00	
I_ANGL_A		0,00	deg	-180,00	180,00	
I_DB_A		0,00	xIn	0,00	40,00	
I_DMD_A		0,00	xIn	0,00	40,00	
I_RANGE_A		normal				
I_INST_B		0,00	xIn	0,00	40,00	
I_ANGL_B		0,00	deg	-180,00	180,00	
I_DB_B		0,00	xIn	0,00	40,00	
I_DMD_B		0,00	xIn	0,00	40,00	
I_RANGE_B		normal				
I_INST_C		0,00	xIn	0,00	40,00	
I_ANGL_C		0,00	deg	-180,00	180,00	
I_DB_C		0,00	xIn	0,00	40,00	
I_DMD_C		0,00	xIn	0,00	40,00	
I_RANGE_C		normal				
RESCMMXU1: 1						
Io(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
I_INST_RES		0,00	xIn	0,00	40,00	
I_ANGL_RES		0,00	deg	-180,00	180,00	
I_DB_RES		0,00	xIn	0,00	40,00	
I_DMD_RES		0,00	xIn	0,00	40,00	
I_RANGE_RES		normal				
RESVMMXU1: 1						
Uo(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
U_INST_RES		0,00	xUn	0,00	4,00	
U_ANGL_RES		0,00	deg	-180,00	180,00	
U_DB_RES		0,00	xUn	0,00	4,00	
U_DMD_RES		0,00	xUn	0,00	4,00	
U_RANGE_RES		normal				
VMMXU1: 1						
3U(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
CSMSQI1: 1						
I1,I2,I0(1)						
Outputs						
I2_HIGH_AL		False				
I2_HIGH_WARN		False				
I1_HIGH_AL		False				
I1_HIGH_WARN		False				
I1_LOW_WARN		False				
I1_LOW_AL		False				
I0_HIGH_AL		False				
I0_HIGH_WARN		False				
Monitored data						
I2_INST		0,00	xIn	0,00	40,00	
I2_ANGL		0,00	deg	-180,00	180,00	
I2_DB		0,00	xIn	0,00	40,00	
I2_RANGE		normal				
I1_INST		0,00	xIn	0,00	40,00	
I1_ANGL		0,00	deg	-180,00	180,00	
I1_DB		0,00	xIn	0,00	40,00	
I1_RANGE		normal				
I0_INST		0,00	xIn	0,00	40,00	
I0_ANGL		0,00	deg	-180,00	180,00	
I0_DB		0,00	xIn	0,00	40,00	
I0_RANGE		normal				
VSMSQI1: 1						
U1,U2,U0(1)						
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U2_HIGH_AL		False				
U2_HIGH_WARN		False				
U1_HIGH_AL		False				
U1_HIGH_WARN		False				
U1_LOW_WARN		False				
U1_LOW_AL		False				
U0_HIGH_AL		False				
U0_HIGH_WARN		False				
Monitored data						
U2_INST		0,00	xUn	0,00	4,00	
U2_ANGL		0,00	deg	-180,00	180,00	
U2_DB		0,00	xUn	0,00	4,00	
U2_RANGE		normal				
U1_INST		0,00	xUn	0,00	4,00	
U1_ANGL		0,00	deg	-180,00	180,00	
U1_DB		0,00	xUn	0,00	4,00	
U1_RANGE		normal				
U0_INST		0,00	xUn	0,00	4,00	
U0_ANGL		0,00	deg	-180,00	180,00	
U0_DB		0,00	xUn	0,00	4,00	
U0_RANGE		normal				
PEMMXU1: 1						
P,E(1)						
Inputs						
RSTACM		False				
Monitored data						
S_INST		0,0	kVA	-999999,9	999999,9	
S_DB		0,0	kVA	-999999,9	999999,9	
S_DMD		0,0	kVA	-999999,9	999999,9	
P_INST		0,0	kW	-999999,9	999999,9	
P_DB		0,0	kW	-999999,9	999999,9	
P_DMD		0,0	kW	-999999,9	999999,9	
Q_INST		0,0	kVAr	-999999,9	999999,9	
Q_DB		0,0	kVAr	-999999,9	999999,9	
Q_DMD		0,0	kVAr	-999999,9	999999,9	
PF_INST		0,00		-1,00	1,00	
PF_DB		0,00		-1,00	1,00	
PF_DMD		0,00		-1,00	1,00	
EA_RV_ACM		0	kWh	0	999999999	
ER_RV_ACM		0	kVArh	0	999999999	
EA_FWD_ACM		0	kWh	0	999999999	
ER_FWD_ACM		0	kVArh	0	999999999	
FMMXU1: 1						
f(1)						
Monitored data						
F_INST		50,00	Hz	35,00	75,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
F_DB		50,00	Hz	35,00	75,00	
F_RANGE		normal				
Generic logic						
SPCGAPC1: 1						
SPC(1)						
Inputs						
BLOCK		False				
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
IN9		False				
IN10		False				
IN11		False				
IN12		False				
IN13		False				
IN14		False				
IN15		False				
IN16		False				
Outputs						
O1		False				
O2		False				
O3		False				
O4		False				
O5		False				
O6		False				
O7		False				
O8		False				
O9		False				
O10		False				
O11		False				
O12		False				
O13		False				
O14		False				
O15		False				
O16		False				
SRGAPC1: 1						
SR(1)						
Inputs						
S1		False				
R1		False				
S2		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC2: 2						
SR(2)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC3: 3						
SR(3)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC1: 1						
MV(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC2: 2						
MV(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC3: 3						
MV(3)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MVGAPC4: 4						
MV(4)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Inputs						
ENA_OPEN		True				
ENA_CLOSE		True				
BLK_OPEN		False				
BLK_CLOSE		False				
SYNC_OK		True				
SYNC_BYPASS		False				
ITL_BYPASS		False				
Outputs						
SELECTED		False				
EXE_OP		False				
EXE_CL		False				
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
OPEN_ENAD		False				
CLOSE_ENAD		False				
CTL_ITL_BLKD		False				
Monitored data						
POSITION		intermediate				
DCSXSWI1: 1						
I<->O DC(1)						
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
ESSXSWI1: 1						
I<->O ES(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
51-1; PHLPTOC1: 1						
3I>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
68; INRPHAR1: 1						
3I2f>(1)						
Inputs						
BLOCK		False				
Outputs						
BLK2H		False				
51N; EFLPTOC1: 1						
Io>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Voltage protection						
59N; ROVPTOV1: 1						
Uo>(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59-1; PHPTOV1: 1						
3U>(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-1; PHPTUV1: 1						
3U<(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Inputs						
BLOCK		False				
START		False				
POSCLOSE		False				
CB_FAULT		False				
Outputs						
CB_FAULT_AL		False				
TRBU		False				
TRRET		False				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CB; ARCSARC2: 21						
ARC(2)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Inputs						
BLOCK		False				
OPERATE		False				
RST_LKOUT		False				
Outputs						
TRIP		False				
CL_LKOUT		False				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Inputs						
BLOCK		False				
POSOPEN		False				
POSCLOSE		False				
OPEN_CB_EXE		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
CLOSE_CB_EXE		False				
PRES_ALM_IN		False				
PRES_LO_IN		False				
RST_IPOW		False				
RST_CB_WEAR		False				
RST_TRV_T		False				
RST_SPR_T		False				
Outputs						
TRV_T_OP_ALM		False				
TRV_T_CL_ALM		False				
SPR_CHR_ALM		False				
OPR_ALM		False				
OPR_LO		False				
IPOW_ALM		False				
IPOW_LO		False				
CB_LIFE_ALM		False				
MON_ALM		False				
PRES_ALM		False				
PRES_LO		False				
OPENPOS		False				
INVALIDPOS		False				
CLOSEPOS		False				
Monitored data						
T_TRV_OP		0	ms	0	60000	
T_TRV_CL		0	ms	0	60000	
T_SPR_CHR		0,00	s	0,00	99,99	
NO_OPR		0		0	99999	
INA_DAYS		0		0	9999	
CB_LIFE_A		0		-99999	99999	
CB_LIFE_B		0		-99999	99999	
CB_LIFE_C		0		-99999	99999	
IPOW_A		0,000		0,000	30000,000	
IPOW_B		0,000		0,000	30000,000	
IPOW_C		0,000		0,000	30000,000	
Supervision						
TCSSCBR1: 1						
TCS(1)						
Inputs						
BLOCK		False				
Outputs						
ALARM		False				
CCSPVC1: 1						
MCS 3I(1)						
Inputs						
BLOCK		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
FAIL		False				
ALARM		False				
Monitored data						
IDIFF		0,00	xIn	0,00	40,00	
SEQSPVC1: 1						
FUSEF(1)						
Inputs						
BLOCK		False				
CB_CLOSED		False				
DISCON_OPEN		False				
MINCB_OPEN		False				
Outputs						
FUSEF_3PH		False				
FUSEF_U		False				
Communication						
GSELPRT1: 1						
GSE(1)						
Outputs						
ALARM		False				
Monitoring						
Reset counters		False				
Received msgs		0		0	10000000	
Transmitted msgs		0		0	10000000	
State changes		0		0	10000000	
SeqNum changes		0		0	10000000	
Test msgs		0		0	10000000	
State warnings		0		0	10000000	
Seq. warnings		0		0	10000000	
Recv. timeouts		0		0	10000000	
ConfRev errors		0		0	10000000	
NdsComm errors		0		0	10000000	
Dataset errors		0		0	10000000	
Replay Prot warnings		0		0	10000000	
Generic timers						
TONGAPC1: 1						
TON(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TONGAPC2: 2						
TON(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
TOFGAPC1: 1						
TOF(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TOFGAPC2: 2						
TOF(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC1: 1						
PT(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC2: 2						
PT(2)						
Inputs						
IN1		False				
IN2		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
FB status						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Current protection						
3I>>>(1)		on				
51-1; PHLPTOC1: 1						
3I>(1)						
Current protection						
3I>(1)		on				
68; INRPHAR1: 1						
3I2f>(1)						
Current protection						
3I2f>(1)		on				
51N; EFLPTOC1: 1						
Io>(1)						
Current protection						
Io>(1)		on				
59-1; PHPTOV1: 1						
3U>(1)						
Voltage protection						
3U>(1)		on				
27-1; PHPTUV1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
3U<(1)						
Voltage protection						
3U<(1)		on				
59N; ROVPTOV1: 1						
Uo>(1)						
Voltage protection						
Uo>(1)		on				
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Other protection						
3I>/Io>BF(1)		on				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Other protection						
ARC(1)		on				
ARC CB; ARCSARC2: 21						
ARC(2)						
Other protection						
ARC(2)		on				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Other protection						
ARC(3)		on				
TRPPTRC1: 1						
Master Trip(1)						
Trip logic						
Master Trip(1)		on				
SSCBR1: 1						
CBCM(1)						
Condition monitoring						
CBCM(1)		on				
TCSSCBR1: 1						
TCS(1)						
Supervision						
TCS(1)		on				
CCSPVC1: 1						
MCS 3I(1)						
Supervision						
MCS 3I(1)		on				
SEQSPVC1: 1						
FUSEF(1)						
Supervision						
FUSEF(1)		on				
Recorded data						
Measurements						
CMMXU1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
3I(1)						
Max demand IL1		0,00	xIn	0,00	40,00	
Max demand IL2		0,00	xIn	0,00	40,00	
Max demand IL3		0,00	xIn	0,00	40,00	
Min demand IL1		0,00	xIn	0,00	40,00	
Min demand IL2		0,00	xIn	0,00	40,00	
Min demand IL3		0,00	xIn	0,00	40,00	
Time max demand IL1		0			34 characters	
Time max demand IL2		0			34 characters	
Time max demand IL3		0			34 characters	
Time min demand IL1		0			34 characters	
Time min demand IL2		0			34 characters	
Time min demand IL3		0			34 characters	
RESCMMXU1: 1						
Io(1)						
Max demand Io		0,00	xIn	0,00	40,00	
Min demand Io		0,00	xIn	0,00	40,00	
Time max demand Io		0			34 characters	
Time min demand Io		0			34 characters	
PEMMXU1: 1						
P,E(1)						
Max demand S		0,0	kVA	-999999,9	999999,9	
Min demand S		0,0	kVA	-999999,9	999999,9	
Max demand P		0,0	kW	-999999,9	999999,9	
Min demand P		0,0	kW	-999999,9	999999,9	
Max demand Q		0,0	kVAr	-999999,9	999999,9	
Min demand Q		0,0	kVAr	-999999,9	999999,9	
Time max dmd S		0			34 characters	
Time min dmd S		0			34 characters	
Time max dmd P		0			34 characters	
Time min dmd P		0			34 characters	
Time max dmd Q		0			34 characters	
Time min dmd Q		0			34 characters	
FLTRFRC1: 1						
FLTRFRC1						
Fault record						
Fault number		0		0	999999	
Time and date		0			34 characters	
Protection (rec. set 1)		None				
Protection (rec. set 2)		None				
Start duration		0,00	%	0,00	100,00	
Operate time		0,000	s	0,000	999999,999	
Breaker clear time		0,000	s	0,000	3,000	
Fault distance		0,00	pu	0,00	3000,00	
Fault resistance		0,00	ohm	0,00	3000,00	
Fault reactance		0,00	ohm	0,00	3000,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Active group		1		1	6	
Shot pointer		1		1	7	
Max diff current IL1:1		0,000	pu	0,000	80,000	
Max diff current IL2:1		0,000	pu	0,000	80,000	
Max diff current IL3:1		0,000	pu	0,000	80,000	
Diff current IL1:1		0,000	pu	0,000	80,000	
Diff current IL2:1		0,000	pu	0,000	80,000	
Diff current IL3:1		0,000	pu	0,000	80,000	
Max bias current IL1:1		0,000	pu	0,000	50,000	
Max bias current IL2:1		0,000	pu	0,000	50,000	
Max bias current IL3:1		0,000	pu	0,000	50,000	
Bias current IL1:1		0,000	pu	0,000	50,000	
Bias current IL2:1		0,000	pu	0,000	50,000	
Bias current IL3:1		0,000	pu	0,000	50,000	
Diff current Io:1		0,000	pu	0,000	80,000	
Bias current Io:1		0,000	pu	0,000	50,000	
Max current IL1:1		0,000	xIn	0,000	50,000	
Max current IL2:1		0,000	xIn	0,000	50,000	
Max current IL3:1		0,000	xIn	0,000	50,000	
Max current Io:1		0,000	xIn	0,000	50,000	
Current IL1:1		0,000	xIn	0,000	50,000	
Current IL2:1		0,000	xIn	0,000	50,000	
Current IL3:1		0,000	xIn	0,000	50,000	
Current Io:1		0,000	xIn	0,000	50,000	
Current Io-Calc:1		0,000	xIn	0,000	50,000	
Current Ps-Seq:1		0,000	xIn	0,000	50,000	
Current Ng-Seq:1		0,000	xIn	0,000	50,000	
Max current IL1:2		0,000	xIn	0,000	50,000	
Max current IL2:2		0,000	xIn	0,000	50,000	
Max current IL3:2		0,000	xIn	0,000	50,000	
Max current Io:2		0,000	xIn	0,000	50,000	
Current IL1:2		0,000	xIn	0,000	50,000	
Current IL2:2		0,000	xIn	0,000	50,000	
Current IL3:2		0,000	xIn	0,000	50,000	
Current Io:2		0,000	xIn	0,000	50,000	
Current Io-Calc:2		0,000	xIn	0,000	50,000	
Current Ps-Seq:2		0,000	xIn	0,000	50,000	
Current Ng-Seq:2		0,000	xIn	0,000	50,000	
Max current IL1:3		0,000	xIn	0,000	50,000	
Max current IL2:3		0,000	xIn	0,000	50,000	
Max current IL3:3		0,000	xIn	0,000	50,000	
Max current Io:3		0,000	xIn	0,000	50,000	
Current IL1:3		0,000	xIn	0,000	50,000	
Current IL2:3		0,000	xIn	0,000	50,000	
Current IL3:3		0,000	xIn	0,000	50,000	
Current Io:3		0,000	xIn	0,000	50,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Current Io-Calc:3		0,000	xIn	0,000	50,000	
Current Ps-Seq:3		0,000	xIn	0,000	50,000	
Current Ng-Seq:3		0,000	xIn	0,000	50,000	
Voltage UL1:1		0,000	xUn	0,000	4,000	
Voltage UL2:1		0,000	xUn	0,000	4,000	
Voltage UL3:1		0,000	xUn	0,000	4,000	
Voltage U12:1		0,000	xUn	0,000	4,000	
Voltage U23:1		0,000	xUn	0,000	4,000	
Voltage U31:1		0,000	xUn	0,000	4,000	
Voltage Uo:1		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:1		0,000	xUn	0,000	4,000	
Voltage UL1:2		0,000	xUn	0,000	4,000	
Voltage UL2:2		0,000	xUn	0,000	4,000	
Voltage UL3:2		0,000	xUn	0,000	4,000	
Voltage U12:2		0,000	xUn	0,000	4,000	
Voltage U23:2		0,000	xUn	0,000	4,000	
Voltage U31:2		0,000	xUn	0,000	4,000	
Voltage Uo:2		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:2		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:2		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:2		0,000	xUn	0,000	4,000	
Voltage UL1:3		0,000	xUn	0,000	4,000	
Voltage UL2:3		0,000	xUn	0,000	4,000	
Voltage UL3:3		0,000	xUn	0,000	4,000	
Voltage UL12:3		0,000	xUn	0,000	4,000	
Voltage UL23:3		0,000	xUn	0,000	4,000	
Voltage UL31:3		0,000	xUn	0,000	4,000	
Voltage Uo:3		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:3		0,000	xUn	0,000	4,000	
PTTR thermal level		0,00		0,00	99,99	
I2/I1>(1) rat. I2/I1		0,00	%	0,00	999,99	
Frequency:1		50,00	Hz	0,00	80,00	
Frequency gradient:1		0,00	Hz/s	-10,00	10,00	
Frequency:2		50,00	Hz	0,00	80,00	
Frequency gradient:2		0,00	Hz/s	-10,00	10,00	
Frequency:3		50,00	Hz	0,00	80,00	
Frequency gradient:3		0,00	Hz/s	-10,00	10,00	
Conductance Yo		0,00	mS	-1000,00	1000,00	
Susceptance Yo		0,00	mS	-1000,00	1000,00	
Angle Uo:1 - Io:1		0,00	deg	-180,00	180,00	
Angle U23:1- IL1:1		0,00	deg	-180,00	180,00	
Angle U31:1 - IL2:1		0,00	deg	-180,00	180,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Angle U12:1 - IL3:1		0,00	deg	-180,00	180,00	
Angle Uo:2 - Io:2		0,00	deg	-180,00	180,00	
Angle U23:2 - IL1:2		0,00	deg	-180,00	180,00	
Angle U31:2 - IL2:2		0,00	deg	-180,00	180,00	
Angle U12:2 - IL3:2		0,00	deg	-180,00	180,00	
Angle Uo:3 - Io:3		0,00	deg	-180,00	180,00	
Angle U23:3 - IL1:3		0,00	deg	-180,00	180,00	
Angle U31:3 - IL2:3		0,00	deg	-180,00	180,00	
Angle U12:3 - IL3:3		0,00	deg	-180,00	180,00	
Control command						
Control: 0						
Control						
LR state		Remote				
Detached LHMI						
EIHMI1: 1						
EIHMI1						
CONNECTION		False				
Service port IP address		0			20 characters	
Main unit port IP address		0			20 characters	
Setting group: 0						
Setting group						
Outputs						
SG_LOGIC_SEL		False				
SG_1_ACT		False				
SG_2_ACT		False				
SG_3_ACT		False				
SG_4_ACT		False				
SG_5_ACT		False				
SG_6_ACT		False				
Programmable LEDs: 1						
Programmable LEDs						
Inputs						
LED 1						
OK		False				
ALARM		False				
RESET		False				
LED 2						
OK		False				
ALARM		False				
RESET		False				
LED 3						
OK		False				
ALARM		False				
RESET		False				
LED 4						
OK		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ALARM		False				
RESET		False				
LED 5						
OK		False				
ALARM		False				
RESET		False				
LED 6						
OK		False				
ALARM		False				
RESET		False				
LED 7						
OK		False				
ALARM		False				
RESET		False				
LED 8						
OK		False				
ALARM		False				
RESET		False				
LED 9						
OK		False				
ALARM		False				
RESET		False				
LED 10						
OK		False				
ALARM		False				
RESET		False				
LED 11						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 1		None				
Programmable LED 2		None				
Programmable LED 3		None				
Programmable LED 4		None				
Programmable LED 5		None				
Programmable LED 6		None				
Programmable LED 7		None				
Programmable LED 8		None				
Programmable LED 9		None				
Programmable LED 10		None				
Programmable LED 11		None				
Programmable LEDs: 2						
Programmable LEDs						
Inputs						
LED 12						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OK		False				
ALARM		False				
RESET		False				
LED 13						
OK		False				
ALARM		False				
RESET		False				
LED 14						
OK		False				
ALARM		False				
RESET		False				
LED 15						
OK		False				
ALARM		False				
RESET		False				
LED 16						
OK		False				
ALARM		False				
RESET		False				
LED 17						
OK		False				
ALARM		False				
RESET		False				
LED 18						
OK		False				
ALARM		False				
RESET		False				
LED 19						
OK		False				
ALARM		False				
RESET		False				
LED 20						
OK		False				
ALARM		False				
RESET		False				
LED 21						
OK		False				
ALARM		False				
RESET		False				
LED 22						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 12		None				
Programmable LED 13		None				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Programmable LED 14		None				
Programmable LED 15		None				
Programmable LED 16		None				
Programmable LED 17		None				
Programmable LED 18		None				
Programmable LED 19		None				
Programmable LED 20		None				
Programmable LED 21		None				
Programmable LED 22		None				
IED status: 1						
IED status						
CAM						
UAM mode		Local				
CAM server1		Offline				
CAM server2		Offline				
Replication		N.A.				
Last update		0			34 characters	
PKI						
CA Server Status		Offline				
Time synchronization						
PTP P2P delay X1		0	ns	-2147483648	2147483647	
PTP P2P delay X2		0	ns	-2147483648	2147483647	
PTP P2P delay X3		0	ns	-2147483648	2147483647	
Self-supervision						
Warning		All ok				
Internal Fault		All ok				
Boot up time		0			34 characters	
Boot up reason		None				
Device state		on				
Composition changes						
No of comp. changes		0		0	100000	
Setting changes						
Setting changes		0		0	20000	
Setting time		0			34 characters	
SMV accuracy						
SMV Synch accuracy		InternalClock				
Local synch accuracy		0	us	0	1000000000	
Max Dev synch Acc		0	us	0	1000000000	
Information						
HW modules						
Slot B (BIO): 1						
Slot B (BIO)						
Article number		2RCA034506 A0001			20 characters	
SW version		0x105			20 characters	
HW revision		G			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Serial number		1VH341247124			20 characters	
Manufacturing date		24.2.2024 00:00:00.000			34 characters	
Test date		24.2.2024 00:00:00.000			34 characters	
Slot C (BIO): 1						
Slot C (BIO)						
Article number		2RCA034506A0001			20 characters	
SW version		0x105			20 characters	
HW revision		G			20 characters	
Serial number		1VH341254410			20 characters	
Manufacturing date		17.4.2024 00:00:00.000			34 characters	
Test date		17.4.2024 00:00:00.000			34 characters	
Slot D (BIO): 1						
Slot D (BIO)						
Article number		2RCA034536A0001			20 characters	
SW version		0x105			20 characters	
HW revision		F			20 characters	
Serial number		1VH341253310			20 characters	
Manufacturing date		26.4.2024 00:00:00.000			34 characters	
Test date		26.4.2024 00:00:00.000			34 characters	
Slot E (AIM): 1						
Slot E (AIM)						
Article number		2RCA034442A0001			20 characters	
SW version		0x104			20 characters	
HW revision		H			20 characters	
Serial number		1VH341244788			20 characters	
Manufacturing date		11.2.2024 00:00:00.000			34 characters	
Test date		11.2.2024 00:00:00.000			34 characters	
Slot F (AIM): 1						
Slot F (AIM)						
Article number		2RCA034442A0001			20 characters	
SW version		0x104			20 characters	
HW revision		H			20 characters	
Serial number		1VH341244337			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Manufacturing date		9.2.2024 00:00:00.000			34 characters	
Test date		9.2.2024 00:00:00.000			34 characters	
Slot G (PSM): 1						
Slot G (PSM)						
Article number		2RCA034470 A0001			20 characters	
SW version		0x101			20 characters	
HW revision		H			20 characters	
Serial number		1VH341219358			20 characters	
Manufacturing date		3.10.2023 00:00:00.000			34 characters	
Test date		3.10.2023 00:00:00.000			34 characters	
EIHMI1: 1						
EIHMI1						
Detached LHMI						
Article number		2RCA033008 A0001			20 characters	
Application version		22-12-12-18: 25			20 characters	
Firmware version		20230131222023			20 characters	
HW revision		V			20 characters	
Serial number		1VHR51024462			20 characters	
Manufacturing date		16.5.2024 01:00:00.000			34 characters	
Test date		16.5.2024 01:00:00.000			34 characters	
Service port MAC address		00:21:C1:34: 82:AF			20 characters	
Main unit port MAC address		00:21:C1:34: 82:B0			20 characters	
Slot A1 (ARC): 1						
Slot A1 (ARC)						
Article number		2RCA032261 A0001			20 characters	
SW version		0x107			20 characters	
HW revision		G			20 characters	
Serial number		1VH341251233			20 characters	
Manufacturing date		28.3.2024 00:00:00.000			34 characters	
Test date		28.3.2024 00:00:00.000			34 characters	
Slot A2 (COM): 1						
Slot A2 (COM)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Article number		2RCA034478A0001			20 characters	
SW version		0x11D			20 characters	
HW revision		L			20 characters	
Serial number		1VH341254193			20 characters	
Manufacturing date		15.4.2024 00:00:00.000			34 characters	
Test date		15.4.2024 00:00:00.000			34 characters	
Product identifiers: 0						
Product identifiers						
Type		REX640			20 characters	
Product version		1			64 characters	
Serial number		1VHR81041858			20 characters	
Production date		10.5.2024 01:00:00.000			34 characters	
SW version		1.3.3			20 characters	
SW date		11.3.2024 13:07:00.000			34 characters	
SW number		2RCA057448D			20 characters	
Interface level		0			64 characters	
Order code		REX640_1AC2			20 characters	
Site identifiers: 0						
Site identifiers						
Customer name		0			20 characters	
Street		0			20 characters	
House number		0			20 characters	
ZIP/Postal code		0			20 characters	
City/Province		0			20 characters	
State		0			20 characters	
Country		0			20 characters	
System identifiers: 0						
System identifiers						
Technical key		AA1L1Q01A1			20 characters	
IEC 61850 version		Edition 2.1			24 characters	
Engineering model		ABB				
HW modules: 0						
HW modules						
Main board						
Article number		2RCA036414A0001			20 characters	
SW version		0x5402			20 characters	
HW revision		J			20 characters	
Serial number		1VH341253729			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Manufacturing date		12.4.2024 00:00:00.000			34 characters	
Test date		12.4.2024 00:00:00.000			34 characters	
Clear						
Disturbance recorder: 0						
Disturbance recorder						
Disturbance records		Cancel				
Clear: 0						
Clear						
Indications and LEDs		Cancel				
Programmable LEDs		Cancel				
Events		Cancel				
Metering records		Cancel				
Power quality data		Cancel				
FLTRFRC1: 1						
FLTRFRC1						
Fault records		Cancel				
LDPRLRC1: 1						
LDPRLRC1						
Load Profile record		Cancel				
TRPPTRC1: 1						
Master Trip(1)						
Master Trip(1)		Cancel				
SSCBR1: 1						
CBCM(1)						
CBCM(1) acc.energy		Cancel				
CBCM(1) rem.life		Cancel				
CBCM(1) travel times		Cancel				
CBCM(1) spr.charge t		Cancel				
PEMMXU1: 1						
P,E(1)						
P,E(1) acc.energy		Cancel				
Application Configuration						
General						
Settings						
Setting group						
Protection: 0						
Setting group						
Active group		1		1	6	
Protection						
Settings						
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		6,50	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	300000	
settingGroup 2						
Start value		6,50	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	300000	
settingGroup 3						
Start value		6,50	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	300000	
settingGroup 4						
Start value		6,50	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	300000	
settingGroup 5						
Start value		6,50	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	300000	
settingGroup 6						
Start value		6,50	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	300000	
51-1; PHLPTOC1: 1						
3I>(1)						
Operation		on				
Num of start phases		1 out of 3				
Minimum operate time		50	ms	20	60000	
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	50000,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	6,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,75	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,200		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
settingGroup 2						
Start value		0,75	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,200		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 3						
Start value		0,75	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,200		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 4						
Start value		0,75	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,200		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 5						
Start value		0,75	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,200		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 6						
Start value		0,75	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,200		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
68; INRPHAR1: 1						
3I2f>(1)						
Operation		off				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		20	%	5	100	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 2						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 3						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 4						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 5						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 6						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
51N; EFLPTOC1: 1						
Io>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
settingGroup 3						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage protection						
59-1; PHPTOV1: 1						
3U>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
27-1; PHPTUV1: 1						
3U<(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Enable block value		False				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
59N; ROVPTOV1: 1						
Uo>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operate delay time		1000	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 6						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Operation		off				
Current value		0,300	xIn	0,050	2,000	
Current value Res		0,30	xIn	0,05	2,00	
CB failure trip mode		1 out of 3				
CB failure mode		Current				
CB fail retrip mode		Off				
Retrip time		120	ms	0	60000	
CB failure delay		240	ms	0	60000	
CB fault delay		5000	ms	0	60000	
Measurement mode		Peak-to-Peak				
Trip pulse time		200	ms	0	60000	
Start latching mode		Rising edge				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CB; ARCSARC2: 21						
ARC(2)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				

Settings

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
REX640_A2						
IED Configuration						
HW Configuration						
Slot B (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot C (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot D (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input inversion						
Input 1 inversion		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
POSITION		intermediate				
SPCGAPC1: 1						
SPC(1)						
TRIG 1		False				
TRIG 2		False				
TRIG 3		False				
TRIG 4		False				
TRIG 5		False				
TRIG 6		False				
TRIG 7		False				
TRIG 8		False				
TRIG 9		False				
TRIG 10		False				
TRIG 11		False				
TRIG 12		False				
TRIG 13		False				
TRIG 14		False				
TRIG 15		False				
TRIG 16		False				
Measurements						
PEMMXU1: 1						
P,E(1)						
S-kVA:1		0,0	kVA	-999999,9	999999,9	
P-kW:1		0,0	kW	-999999,9	999999,9	
Q-kVAr:1		0,0	kVAr	-999999,9	999999,9	
PF:1		0,00		-1,00	1,00	
CMMXU1: 1						
3I(1)						
IL1-A:1		0,00	xIn	0,00	40,00	
IL2-A:1		0,00	xIn	0,00	40,00	
IL3-A:1		0,00	xIn	0,00	40,00	
RESCMMXU1: 1						
Io(1)						
Io-A:1		0,00	xIn	0,00	40,00	
RESVMMXU1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Uo(1)						
Uo-kV:1		0,00	xUn	0,00	4,00	
VMMXU1: 1						
3U(1)						
U12-kV:1		0,00	xUn	0,00	4,00	
U23-kV:1		0,00	xUn	0,00	4,00	
U31-kV:1		0,00	xUn	0,00	4,00	
UL1-kV:1		0,00	xUn	0,00	5,00	
UL2-kV:1		0,00	xUn	0,00	5,00	
UL3-kV:1		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
U12-kV:2		0,00	xUn	0,00	4,00	
U23-kV:2		0,00	xUn	0,00	4,00	
U31-kV:2		0,00	xUn	0,00	4,00	
UL1-kV:2		0,00	xUn	0,00	5,00	
UL2-kV:2		0,00	xUn	0,00	5,00	
UL3-kV:2		0,00	xUn	0,00	5,00	
FMMXU1: 1						
f(1)						
f-Hz:1		50,00	Hz	35,00	75,00	
CSMSQI1: 1						
I1,I2,I0(1)						
NgSeq-A:1		0,00	xIn	0,00	40,00	
PsSeq-A:1		0,00	xIn	0,00	40,00	
ZrSeq-A:1		0,00	xIn	0,00	40,00	
VSMSQI1: 1						
U1,U2,U0(1)						
NgSeq-kV:1		0,00	xUn	0,00	4,00	
PsSeq-kV:1		0,00	xUn	0,00	4,00	
ZrSeq-kV:1		0,00	xUn	0,00	4,00	
Disturbance records						
Disturbance recorder: 0						
Disturbance recorder						
Number of recordings		0		0	100	
Rem. amount of rec.		0		0	100	
Rec. memory used		0	%	0	100	
Trig recording		Cancel				
Time to trigger		0	s	0	604800	
Configuration						
Disturbance recorder: 0						
Disturbance recorder						
General						
Operation		on				
Record length		50	cycles	10	500	
Pre-trg length		50	%	0	100	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Overwrite				
Exclusion time		0	ms	0	1000000	
Storage rate		32 samples / cycle				
Periodic trig time		0	s	0	604800	
Stor. mode periodic		Waveform				
Stor. mode manual		Waveform				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Operation		on				
Select timeout		30000	ms	10000	300000	
Pulse length		200	ms	10	60000	
Operation counter		0		0	99999	
Control model		sbo-with-enhanced-security				
Adaptive pulse		True				
Event delay		200	ms	0	10000	
Operation timeout		500	ms	10	6000000	
Interlocking Pls Len		2	s	1	10	
Identification		CBXCBR1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
General: 0						
Control						
General						
LR control		Binary input				
Station authority		L,R				
Control mode		On				
DCSXSWI1: 1						
I<->O DC(1)						
Event delay		30000	ms	0	60000	
Identification		DCSXSWI1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
ESSXSWI1: 1						
I<->O ES(1)						
Event delay		30000	ms	0	60000	
Identification		ESSXSWI1 switch position			255 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
System						
Control: 0						
Control						
Rated frequency		50Hz				
Phase rotation		ABC				
Blocking mode		Freeze timer				
Bay name		REX640_A2			20 characters	
IDMT Sat point		50	I/I>	10	50	
Frequency adaptivity		Disable				
SMV Max Delay		3/3 ms				
Test mode selection		Local				
HMI						
EIHMI1: 1						
EIHMI1						
Backlight brightness		100	%	1	100	
Enable USB access		No				
Enable HMI service port		Yes				
Communication						
Ethernet						
Rate Limiter: 1						
Rate Limiter						
Rate limiter						
Rate limit ctrl		False				
RCHLCCH1: 1						
RCHLCCH1						
Redundancy						
Redundant mode		None				
Filter						
Filter mode A_B		Off				
Rate limiter						
GOOSE rate limit A_B		10,000		0,512	90,000	
SMV rate limit A_B		70,000		0,512	90,000	
Def. rate limit A_B		8,000		0,512	90,000	
SCHLCCH1: 1						
SCHLCCH1						
Port modes						
Port mode X1		On				
Filter						
Filter mode X1		Off				
Rate limiter						
GOOSE rate limit X1		10,000		0,512	90,000	
SMV rate limit X1		70,000		0,512	90,000	
Def. rate limit X1		8,000		0,512	90,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SCHLCCH2: 2						
SCHLCCH2						
Port modes						
Port mode X2		On				
Filter						
Filter mode X2		Off				
Rate limiter						
GOOSE rate limit X2		10,000		0,512	90,000	
SMV rate limit X2		70,000		0,512	90,000	
Def. rate limit X2		8,000		0,512	90,000	
SCHLCCH3: 3						
SCHLCCH3						
Port modes						
Port mode X3		On				
Filter						
Filter mode X3		Off				
Rate limiter						
GOOSE rate limit X3		10,000		0,512	90,000	
SMV rate limit X3		70,000		0,512	90,000	
Def. rate limit X3		8,000		0,512	90,000	
Network1: 1						
Network1						
Network1 address						
IP address		192.168.10.6				
Subnet mask		255.255.255.224				
Default gateway		192.168.10.30				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
Network2: 2						
Network2						
Network2 address						
Enable		False				
IP address		192.168.3.10				
Subnet mask		255.255.255.0				
Default gateway		0.0.0.0			16 characters	
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
HMI: 1						
HMI						
HMI address						
IP address		192.168.0.254				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Protocols						
GSELPRT1: 1						
GSE(1)						
GOOSE						
Change det. interval		500	ms	50	1000	
MMSLPRT1: 1						
MMS(1)						
MMS						
Unit mode		Nominal				
Network1						
MMS		On				
HMI port						
MMS		On				
FTPLPRT1: 1						
FTPLPRT1						
Network1						
FTP		Secure				
HMI port						
FTP		Secure				
HTTPLPRT1: 1						
HTTPLPRT1						
Network1						
HTTPS		On				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Network1						
Modbus		On				
MBSLPRT2: 2						
MBSLPRT2						
Modbus (2)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Analog inputs						
Current (3I): 1						
Current (3I)						
Current input type		Current trafo				
Primary current		50,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		True				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Current (Io): 1						
Current (Io)						
Current input type		Current trafo				
Primary current		100,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		False				
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage (3U): 1						
Voltage (3U)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (3UB): 2						
Voltage (3UB)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (Uo): 1						
Voltage (Uo)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Voltage (UoB): 2						
Voltage (UoB)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Measurements						
CMMXU1: 1						
3I(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
A high high limit		1,40	xIn	0,00	40,00	
A high limit		1,20	xIn	0,00	40,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A low limit		0,00	xIn	0,00	40,00	
A low low limit		0,00	xIn	0,00	40,00	
A deadband		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESCMMXU1: 1						
Io(1)						
Operation		on				
Measurement mode		DFT				
A Hi high limit res		0,20	xIn	0,00	40,00	
A high limit res		0,05	xIn	0,00	40,00	
A deadband res		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESVMMXU1: 1						
Uo(1)						
Operation		on				
Measurement mode		DFT				
V Hi high limit res		0,20	xUn	0,00	4,00	
V high limit res		0,05	xUn	0,00	4,00	
V deadband res		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU1: 1						
3U(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		3 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,20	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU2: 2						
3U(2)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,00	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time		0	ms	0	1800000	
FMMXU1: 1						
f(1)						
Operation		on				
F high high limit		60,00	Hz	35,00	75,00	
F high limit		55,00	Hz	35,00	75,00	
F low limit		45,00	Hz	35,00	75,00	
F low low limit		40,00	Hz	35,00	75,00	
F deadband		1000		100	100000	
Def frequency Sel		Nominal				
PEMMXU1: 1						
P,E(1)						
Operation		on				
Power unit Mult		k				
Energy unit Mult		k				
Active power Dir		Forward				
Reactive power Dir		Forward				
Power deadband		10000		1000	10000	
Forward Wh Initial		0		0	999999999	
Reverse Wh Initial		0		0	999999999	
Forward VArh Initial		0		0	999999999	
Reverse VArh Initial		0		0	999999999	
Measurement mode		PhsA, PhsB, PhsC				
Pulse quantity		100000	Wh/VArh	1	10000000	
Pulse on time		1,000	s	0,050	60,000	
Pulse off time		0,500	s	0,050	60,000	
CSMSQI1: 1						
I1,I2,I0(1)						
Operation		on				
Ps Seq A Hi high Lim		1,40	xIn	0,00	40,00	
Ps Seq A high limit		1,20	xIn	0,00	40,00	
Ps Seq A low limit		0,00	xIn	0,00	40,00	
Ps Seq A low low Lim		0,00	xIn	0,00	40,00	
Ps Seq A deadband		2500		100	100000	
Ng Seq A Hi high Lim		0,20	xIn	0,00	40,00	
Ng Seq A High limit		0,05	xIn	0,00	40,00	
Ng Seq A low limit		0,00	xIn	0,00	40,00	
Ng Seq A low low Lim		0,00	xIn	0,00	40,00	
Ng Seq A deadband		2500		100	100000	
Zro A Hi high Lim		0,20	xIn	0,00	40,00	
Zro A High limit		0,05	xIn	0,00	40,00	
Zro A low limit		0,00	xIn	0,00	40,00	
Zro A low low Lim		0,00	xIn	0,00	40,00	
Zro A deadband		2500		100	100000	
Ps Seq A on delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Ps Seq A off delay time		0	ms	0	1800000	
Ng Seq A on delay time		0	ms	0	1800000	
Ng Seq A off delay time		0	ms	0	1800000	
Zro A on delay time		0	ms	0	1800000	
Zro A off delay time		0	ms	0	1800000	
VSMSQI1: 1						
U1,U2,U0(1)						
Operation		on				
Ps Seq V Hi high Lim		1,40	xUn	0,00	4,00	
Ps Seq V high limit		1,20	xUn	0,00	4,00	
Ps Seq V low limit		0,00	xUn	0,00	4,00	
Ps Seq V low low Lim		0,00	xUn	0,00	4,00	
Ps Seq V deadband		10000		100	100000	
Ng Seq V Hi high Lim		0,20	xUn	0,00	4,00	
Ng Seq V High limit		0,05	xUn	0,00	4,00	
Ng Seq V low limit		0,00	xUn	0,00	4,00	
Ng Seq V low low Lim		0,00	xUn	0,00	4,00	
Ng Seq V deadband		10000		100	100000	
Zro V Hi high Lim		0,20	xUn	0,00	4,00	
Zro V High limit		0,05	xUn	0,00	4,00	
Zro V low limit		0,00	xUn	0,00	4,00	
Zro V low low Lim		0,00	xUn	0,00	4,00	
Zro V deadband		10000		100	100000	
Ps Seq V on delay time		0	ms	0	1800000	
Ps Seq V off delay time		0	ms	0	1800000	
Ng Seq V on delay time		0	ms	0	1800000	
Ng Seq V off delay time		0	ms	0	1800000	
Zro V on delay time		0	ms	0	1800000	
Zro V off delay time		0	ms	0	1800000	
Demand metering: 0						
Demand metering						
Demand interval		1 minute				
A demand Av mode		Linear				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Operation		on				
Trip pulse time		250	ms	20	60000	
Trip output mode		Non-latched				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Operation		on				
Acc stop current		10,00	A	5,00	500,00	
Open alarm time		40	ms	0	200	
Close alarm time		40	ms	0	200	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Opening time Cor		10	ms	-100	100	
Closing time Cor		10	ms	-100	100	
Spring charge time		15	s	0	60	
Counter initial Val		0		0	99999	
Alarm Op number		200		0	99999	
Lockout Op number		300		0	99999	
Current exponent		2,00		0,00	5,00	
Difference Cor time		5	ms	-10	10	
Alm Acc currents Pwr		2500,00		0,00	20000,00	
LO Acc currents Pwr		2500,00		0,00	20000,00	
Ini Acc currents Pwr		0,00		0,00	20000,00	
Initial CB Rmn life		5000		0	99999	
Rated Op current		1000,00	A	100,00	6300,00	
Rated fault current		5000,00	A	500,00	99999,00	
Op number rated		10000		1	99999	
Op number fault		1000		1	10000	
Life alarm level		500		0	99999	
Pressure alarm time		10	ms	0	60000	
Pres lockout time		10	ms	0	60000	
Inactive Alm days		2000		0	9999	
Ini inactive days		0		0	9999	
Inactive Alm hours		0	h	0	23	
Travel time Clc mode		From Pos to Pos				
Supervision						
TCSSCBR1: 1						
TCS(1)						
Operation		off				
Operate delay time		3000	ms	1000	300000	
Reset delay time		1000	ms	1000	60000	
CCSPVC1: 1						
MCS 3I(1)						
Operation		on				
Start value		0,05	xIn	0,05	0,50	
Max operate current		1,50	xIn	1,00	5,00	
SEQSPVC1: 1						
FUSEF(1)						
Operation		off				
Neg Seq current Lev		0,03	xIn	0,03	0,20	
Neg Seq voltage Lev		0,10	xUn	0,03	0,20	
Change rate enable		False				
Min Op voltage delta		0,50	xUn	0,01	1,00	
Min Op current delta		0,10	xIn	0,01	1,00	
Enable seal in		False				
Current dead Lin Val		0,05	xIn	0,05	1,00	
Disturbance recorder						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A1RADR: 1						
A1RADR						
Analog channel 1						
Operation		on				
Channel id text		Analog ch 1 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 2						
Operation		on				
Channel id text		Analog ch 2 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 3						
Operation		on				
Channel id text		Analog ch 3 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 4						
Operation		on				
Channel id text		Analog ch 4 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 5						
Operation		on				
Channel id text		Analog ch 5 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 6						
Operation		on				
Channel id text		Analog ch 6 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 7						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 7 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 8						
Operation		on				
Channel id text		Analog ch 8 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 9						
Operation		on				
Channel id text		Analog ch 9 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 10						
Operation		on				
Channel id text		Analog ch 10 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 11						
Operation		on				
Channel id text		Analog ch 11 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 12						
Operation		on				
Channel id text		Analog ch 12 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
A2RADR: 13						
A2RADR						
Analog channel 13						
Operation		on				
Channel id text		Analog ch 13 input			64 characters	
High trigger level		10,00		0,00	60,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 14						
Operation		on				
Channel id text		Analog ch 14 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 15						
Operation		on				
Channel id text		Analog ch 15 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 16						
Operation		on				
Channel id text		Analog ch 16 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 17						
Operation		on				
Channel id text		Analog ch 17 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 18						
Operation		on				
Channel id text		Analog ch 18 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 19						
Operation		on				
Channel id text		Analog ch 19 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 20						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 20 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 21						
Operation		on				
Channel id text		Analog ch 21 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 22						
Operation		on				
Channel id text		Analog ch 22 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 23						
Operation		on				
Channel id text		Analog ch 23 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 24						
Operation		on				
Channel id text		Analog ch 24 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
B1RBDR: 1						
B1RBDR						
Binary channel 1						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 1 input			64 characters	
Binary channel 2						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 2 input			64 characters	
Binary channel 3						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 3 input			64 characters	
Binary channel 4						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 4 input			64 characters	
Binary channel 5						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 5 input			64 characters	
Binary channel 6						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 6 input			64 characters	
Binary channel 7						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 7 input			64 characters	
Binary channel 8						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 8 input			64 characters	
Binary channel 9						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 9 input			64 characters	
Binary channel 10						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 10 input			64 characters	
Binary channel 11						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 11 input			64 characters	
Binary channel 12						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 12 input			64 characters	
Binary channel 13						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 13 input			64 characters	
Binary channel 14						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 14 input			64 characters	
Binary channel 15						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 15 input			64 characters	
Binary channel 16						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 16 input			64 characters	
Binary channel 17						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 17 input			64 characters	
Binary channel 18						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 18 input			64 characters	
Binary channel 19						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 19 input			64 characters	
Binary channel 20						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 20 input			64 characters	
Binary channel 21						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 21 input			64 characters	
Binary channel 22						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 22 input			64 characters	
Binary channel 23						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 23 input			64 characters	
Binary channel 24						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 24 input			64 characters	
Binary channel 25						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 25 input			64 characters	
Binary channel 26						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 26 input			64 characters	
Binary channel 27						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 27 input			64 characters	
Binary channel 28						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 28 input			64 characters	
Binary channel 29						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 29 input			64 characters	
Binary channel 30						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 30 input			64 characters	
Binary channel 31						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 31 input			64 characters	
Binary channel 32						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 32 input			64 characters	
B2RBDR: 33						
B2RBDR						
Binary channel 33						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 33 input			64 characters	
Binary channel 34						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 34 input			64 characters	
Binary channel 35						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 35 input			64 characters	
Binary channel 36						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 36 input			64 characters	
Binary channel 37						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 37 input			64 characters	
Binary channel 38						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 38 input			64 characters	
Binary channel 39						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 39 input			64 characters	
Binary channel 40						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 40 input			64 characters	
Binary channel 41						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 41 input			64 characters	
Binary channel 42						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 42 input			64 characters	
Binary channel 43						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 43 input			64 characters	
Binary channel 44						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 44 input			64 characters	
Binary channel 45						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 45 input			64 characters	
Binary channel 46						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 46 input			64 characters	
Binary channel 47						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 47 input			64 characters	
Binary channel 48						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 48 input			64 characters	
Binary channel 49						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 49 input			64 characters	
Binary channel 50						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 50 input			64 characters	
Binary channel 51						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 51 input			64 characters	
Binary channel 52						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 52 input			64 characters	
Binary channel 53						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 53 input			64 characters	
Binary channel 54						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 54 input			64 characters	
Binary channel 55						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 55 input			64 characters	
Binary channel 56						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 56 input			64 characters	
Binary channel 57						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 57 input			64 characters	
Binary channel 58						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 58 input			64 characters	
Binary channel 59						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 59 input			64 characters	
Binary channel 60						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 60 input			64 characters	
Binary channel 61						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 61 input			64 characters	
Binary channel 62						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 62 input			64 characters	
Binary channel 63						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 63 input			64 characters	
Binary channel 64						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 64 input			64 characters	
Fault record						
FLTRFRC1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
FLTRFRC1						
Operation		on				
Trig mode		From operate				
A measurement mode		DFT				
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Operation		on				
Mem. warning level		0	%	0	100	
Mem. alarm level		0	%	0	100	
Generic timers						
TONGAPC1: 1						
TON(1)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TONGAPC2: 2						
TON(2)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TOFGAPC1: 1						
TOF(1)						
Off delay time 1		500	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
TOFGAPC2: 2						
TOF(2)						
Off delay time 1		0	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
PTGAPC1: 1						
PT(1)						
Pulse time 1		150	ms	0	3600000	
Pulse time 2		150	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
PTGAPC2: 2						
PT(2)						
Pulse time 1		0	ms	0	3600000	
Pulse time 2		0	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
Generic logic						
SPCGAPC1: 1						
SPC(1)						
General						
Loc Rem restriction		False				
Output 1						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM CLOSE CMD (DIRECT)			64 characters	
Output 2						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM OPEN CMD (DIRECT)			64 characters	
Output 3						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		RESET ALARMS			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 4						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 4			64 characters	
Output 5						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 5			64 characters	
Output 6						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 6			64 characters	
Output 7						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 7			64 characters	
Output 8						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 8			64 characters	
Output 9						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 9			64 characters	
Output 10						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 10			64 characters	
Output 11						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 11			64 characters	
Output 12						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 12			64 characters	
Output 13						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		SPCGAPC1 Output 13			64 characters	
Output 14						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 14			64 characters	
Output 15						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		EMERGENCY			64 characters	
Output 16						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 16			64 characters	
SRGAPC1: 1						
SR(1)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC2: 2						
SR(2)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC3: 3						
SR(3)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MVGAPC1: 1						
MV(1)						
Output 1						
Description		MVGAPC1 Q1			20 characters	
Output 2						
Description		MVGAPC1 Q2			20 characters	
Output 3						
Description		MVGAPC1 Q3			20 characters	
Output 4						
Description		MVGAPC1 Q4			20 characters	
Output 5						
Description		MVGAPC1 Q5			20 characters	
Output 6						
Description		MVGAPC1 Q6			20 characters	
Output 7						
Description		MVGAPC1 Q7			20 characters	
Output 8						
Description		MVGAPC1 Q8			20 characters	
MVGAPC2: 2						
MV(2)						
Output 1						
Description		MVGAPC2 Q1			20 characters	
Output 2						
Description		MVGAPC2 Q2			20 characters	
Output 3						
Description		MVGAPC2 Q3			20 characters	
Output 4						
Description		MVGAPC2 Q4			20 characters	
Output 5						
Description		MVGAPC2 Q5			20 characters	
Output 6						
Description		MVGAPC2 Q6			20 characters	
Output 7						
Description		MVGAPC2 Q7			20 characters	
Output 8						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC2 Q8			20 characters	
MVGAPC3: 3						
MV(3)						
Output 1						
Description		MVGAPC3 Q1			20 characters	
Output 2						
Description		MVGAPC3 Q2			20 characters	
Output 3						
Description		MVGAPC3 Q3			20 characters	
Output 4						
Description		MVGAPC3 Q4			20 characters	
Output 5						
Description		MVGAPC3 Q5			20 characters	
Output 6						
Description		MVGAPC3 Q6			20 characters	
Output 7						
Description		MVGAPC3 Q7			20 characters	
Output 8						
Description		MVGAPC3 Q8			20 characters	
MVGAPC4: 4						
MV(4)						
Output 1						
Description		MVGAPC4 Q1			20 characters	
Output 2						
Description		MVGAPC4 Q2			20 characters	
Output 3						
Description		MVGAPC4 Q3			20 characters	
Output 4						
Description		MVGAPC4 Q4			20 characters	
Output 5						
Description		MVGAPC4 Q5			20 characters	
Output 6						
Description		MVGAPC4 Q6			20 characters	
Output 7						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC4 Q7			20 characters	
Output 8						
Description		MVGAPC4 Q8			20 characters	
General: 0						
General						
Software reset		Cancel				
HMI: 0						
HMI						
FB naming convention		IEC61850				
Backlight timeout		3	min	1	60	
Web HMI mode		On				
HMI timeout		15	min	1	60	
SLD symbol format		IEC				
Setting visibility		Advanced				
User defined name		Disabled				
Time: 0						
Time						
System time						
Time format		24H:MM:SS:MS				
Date format		DD.MM.YYYY				
Date		0			20 characters	
Time		0			20 characters	
Local time offset		0	min	-840	840	
Daylight saving time						
DST in use		True				
DST on time (hours)		2	h	0	23	
DST on time (minutes)		0	min	0	59	
DST on date (day)		1		1	31	
DST on date (month)		May				
DST on day (weekday)		reserved				
DST off time (hours)		2	h	0	23	
DST off time (minutes)		0	min	0	59	
DST off date (day)		25		1	31	
DST off date (month)		September				
DST off day (weekday)		reserved				
DST offset		60	min	-720	720	
SNTP						
IP SNTP primary		192.168.2.166				
IP SNTP secondary		192.168.2.165				
Synchronization						
Synch source		SNTP				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PTP Profile		IEEE C37.238-2011				
PTP domain ID		0		0	255	
PTP priority 1		128		0	255	
PTP priority 2		128		0	255	
PTP Slave-only		False				
Time master mode		Master with finite holdover				
Clear clock list		False				
Time Syn Src Tmm		3	min	1	65535	
Setting group: 0						
Setting group						
SG operation mode		Operator				
Control: 0						
Control						
LHMI						
Close delay mode		Not in use				
Close delay		60	s	5	900	
Breaker operation		After confirmation				
Programmable LEDs: 1						
Programmable LEDs						
General						
Alarm colour		Red				
LED 1						
Alarm mode		Follow-S				
Description		27/59 Voltage Protection			64 characters	
LED 2						
Alarm mode		Follow-S				
Description		Contactor Ready			64 characters	
LED 3						
Alarm mode		Follow-S				
Description		Synchrocheck			64 characters	
LED 4						
Alarm mode		Follow-S				
Description		Contactor Ready to close			64 characters	
LED 5						
Alarm mode		Follow-S				
Description		50/51 Current Protection			64 characters	
LED 6						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Alarm mode		Follow-S				
Description		51N/59N Earth Fault Protection			64 characters	
LED 7						
Alarm mode		Follow-S				
Description		Earthing Switch Unlocked			64 characters	
LED 8						
Alarm mode		Follow-S				
Description		Contactor Truck Unlocked			64 characters	
LED 9						
Alarm mode		Follow-S				
Description		Arc Protection Trip			64 characters	
LED 10						
Alarm mode		Follow-S				
Description		GOOSE Alarm			64 characters	
LED 11						
Alarm mode		Follow-S				
Description		Emergency Open by SIS			64 characters	
Programmable LEDs: 2						
Programmable LEDs						
LED 12						
Alarm mode		Follow-S				
Description		Space Heater ON			64 characters	
LED 13						
Alarm mode		Follow-S				
Description		Transformer Protections			64 characters	
LED 14						
Alarm mode		Follow-S				
Description		Contactor Fuses Trip			64 characters	
LED 15						
Alarm mode		Follow-S				
Description		Trip from LV			64 characters	
LED 16						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 17						
Alarm mode		Follow-S				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		-			64 characters	
LED 18						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 19						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 20						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 21						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 22						
Alarm mode		Follow-S				
Description		-			64 characters	
I/O modules: 0						
I/O modules						
Common settings						
Slot specific threshold		False				
Slot specific hysteresis		False				
Input threshold voltage		16	Vdc	16	176	
Input threshold hysteresis		10	%	10	50	
Input osc. level		30	events/s	2	50	
Input osc. hyst		10	events/s	2	50	
User Activity log: 0						
User Activity log						
Server Settings 1						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address		192.168.2.5				
Server Settings 2						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address2		192.168.2.6				
Authorization: 1						
Authorization						
Security						
Remote Update		Disable				
Passwords						
Remote override		True				
Local override		True				
CAM						
Clear AD userlist		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Network1						
FTP write access		On				
MMS write access		On				
HTTPS write access		On				
HMI						
FTP write access		On				
MMS write access		On				
Monitoring						
Communication						
Ethernet						
RCHLCCH1: 1						
RCHLCCH1						
Activity						
CHLIV_A		False				
REDCHLIV_B		False				
Link statuses						
LNKLIV_A		False				
REDLNKLIV_B		False				
Diagnostics						
A_B						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH1: 1						
SCHLCCH1						
Activity						
CH1LIV		False				
Link statuses						
LNK1LIV		False				
Diagnostics						
X1						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SCHLCCH2: 2						
SCHLCCH2						
Activity						
CH2LIV		False				
Link statuses						
LNK2LIV		False				
Diagnostics						
X2						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH3: 3						
SCHLCCH3						
Activity						
CH3LIV		False				
Link statuses						
LNK3LIV		False				
Diagnostics						
X3						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
HMILCCH1: 1						
HMILCCH1						
Activity						
HMICHLIV		False				
Link statuses						
HMILNKLIV		Down				
SCHLCCH6: 6						
SCHLCCH6						
Activity						
CH6LIV		False				
Link statuses						
LNK6LIV		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Diagnostics						
X6						
Temperature		0,0	°C	-128,0	128,0	
Voltage		0,000	V	0,000	6,550	
Bias current		0,0	mA	0,0	131,0	
TX power		0,000	mW	0,000	6,550	
RX power		0,000	mW	0,000	6,550	
XCVR detected		False				
RX power alarm		False				
TX power alarm		False				
Voltage alarm		False				
Temperature alarm		False				
Part name		0			20 characters	
Protocols						
MMSLPRT1: 1						
MMS(1)						
CHLIV		False				
Successful conn.		0		0	10000000	
Failed conn.		0		0	10000000	
Concludes		0		0	10000000	
Sent aborts		0		0	10000000	
Recv. aborts		0		0	10000000	
Sent rejects		0		0	10000000	
Recv. requests		0		0	10000000	
Failed requests		0		0	10000000	
Reads		0		0	10000000	
Failed reads		0		0	10000000	
Writes		0		0	10000000	
Failed writes		0		0	10000000	
Reports		0		0	10000000	
Active conn.		0		0	10000000	
Reset counters		False				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT2: 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MBSLPRT2						
Modbus (2)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Rec. memory used		0	%	0	100	
MEM_WARN		False				
MEM_ALARM		False				
I/O status						
Binary input values						
Slot B (BIO): 1						
Slot B (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot C (BIO): 1						
Slot C (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot D (BIO): 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Slot D (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
TCS Input 1		False				
TCS Input 2		False				
Binary output values						
Slot B (BIO): 1						
Slot B (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot C (BIO): 1						
Slot C (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot D (BIO): 1						
Slot D (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot G (PSM): 1						
Slot G (PSM)						
Output 1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Output 9		False				
Output 10		False				
Analog inputs						
Current (3I): 1						
Current (3I)						
ALARM		False				
WARNING		False				
Current (Io): 1						
Current (Io)						
ALARM		False				
WARNING		False				
Voltage (Uo): 1						
Voltage (Uo)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (UoB): 2						
Voltage (UoB)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (3U): 1						
Voltage (3U)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Voltage (3UB): 2						
Voltage (3UB)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Measurements						
CMMXU1: 1						
3I(1)						
Inputs						
BLOCK		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
I_INST_A		0,00	xIn	0,00	40,00	
I_ANGL_A		0,00	deg	-180,00	180,00	
I_DB_A		0,00	xIn	0,00	40,00	
I_DMD_A		0,00	xIn	0,00	40,00	
I_RANGE_A		normal				
I_INST_B		0,00	xIn	0,00	40,00	
I_ANGL_B		0,00	deg	-180,00	180,00	
I_DB_B		0,00	xIn	0,00	40,00	
I_DMD_B		0,00	xIn	0,00	40,00	
I_RANGE_B		normal				
I_INST_C		0,00	xIn	0,00	40,00	
I_ANGL_C		0,00	deg	-180,00	180,00	
I_DB_C		0,00	xIn	0,00	40,00	
I_DMD_C		0,00	xIn	0,00	40,00	
I_RANGE_C		normal				
RESCMMXU1: 1						
Io(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
I_INST_RES		0,00	xIn	0,00	40,00	
I_ANGL_RES		0,00	deg	-180,00	180,00	
I_DB_RES		0,00	xIn	0,00	40,00	
I_DMD_RES		0,00	xIn	0,00	40,00	
I_RANGE_RES		normal				
RESVMMXU1: 1						
Uo(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
U_INST_RES		0,00	xUn	0,00	4,00	
U_ANGL_RES		0,00	deg	-180,00	180,00	
U_DB_RES		0,00	xUn	0,00	4,00	
U_DMD_RES		0,00	xUn	0,00	4,00	
U_RANGE_RES		normal				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
VMMXU1: 1						
3U(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
CSMSQI1: 1						
I1,I2,I0(1)						
Outputs						
I2_HIGH_AL		False				
I2_HIGH_WARN		False				
I1_HIGH_AL		False				
I1_HIGH_WARN		False				
I1_LOW_WARN		False				
I1_LOW_AL		False				
I0_HIGH_AL		False				
I0_HIGH_WARN		False				
Monitored data						
I2_INST		0,00	xIn	0,00	40,00	
I2_ANGL		0,00	deg	-180,00	180,00	
I2_DB		0,00	xIn	0,00	40,00	
I2_RANGE		normal				
I1_INST		0,00	xIn	0,00	40,00	
I1_ANGL		0,00	deg	-180,00	180,00	
I1_DB		0,00	xIn	0,00	40,00	
I1_RANGE		normal				
I0_INST		0,00	xIn	0,00	40,00	
I0_ANGL		0,00	deg	-180,00	180,00	
I0_DB		0,00	xIn	0,00	40,00	
I0_RANGE		normal				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
VSMSQI1: 1						
U1,U2,U0(1)						
Outputs						
U2_HIGH_AL		False				
U2_HIGH_WARN		False				
U1_HIGH_AL		False				
U1_HIGH_WARN		False				
U1_LOW_WARN		False				
U1_LOW_AL		False				
U0_HIGH_AL		False				
U0_HIGH_WARN		False				
Monitored data						
U2_INST		0,00	xUn	0,00	4,00	
U2_ANGL		0,00	deg	-180,00	180,00	
U2_DB		0,00	xUn	0,00	4,00	
U2_RANGE		normal				
U1_INST		0,00	xUn	0,00	4,00	
U1_ANGL		0,00	deg	-180,00	180,00	
U1_DB		0,00	xUn	0,00	4,00	
U1_RANGE		normal				
U0_INST		0,00	xUn	0,00	4,00	
U0_ANGL		0,00	deg	-180,00	180,00	
U0_DB		0,00	xUn	0,00	4,00	
U0_RANGE		normal				
PEMMXU1: 1						
P,E(1)						
Inputs						
RSTACM		False				
Monitored data						
S_INST		0,0	kVA	-999999,9	999999,9	
S_DB		0,0	kVA	-999999,9	999999,9	
S_DMD		0,0	kVA	-999999,9	999999,9	
P_INST		0,0	kW	-999999,9	999999,9	
P_DB		0,0	kW	-999999,9	999999,9	
P_DMD		0,0	kW	-999999,9	999999,9	
Q_INST		0,0	kVAr	-999999,9	999999,9	
Q_DB		0,0	kVAr	-999999,9	999999,9	
Q_DMD		0,0	kVAr	-999999,9	999999,9	
PF_INST		0,00		-1,00	1,00	
PF_DB		0,00		-1,00	1,00	
PF_DMD		0,00		-1,00	1,00	
EA_RV_ACM		0	kWh	0	999999999	
ER_RV_ACM		0	kVArh	0	999999999	
EA_FWD_ACM		0	kWh	0	999999999	
ER_FWD_ACM		0	kVArh	0	999999999	
FMMXU1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
f(1)						
Monitored data						
F_INST		50,00	Hz	35,00	75,00	
F_DB		50,00	Hz	35,00	75,00	
F_RANGE		normal				
Generic logic						
SPCGAPC1: 1						
SPC(1)						
Inputs						
BLOCK		False				
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
IN9		False				
IN10		False				
IN11		False				
IN12		False				
IN13		False				
IN14		False				
IN15		False				
IN16		False				
Outputs						
O1		False				
O2		False				
O3		False				
O4		False				
O5		False				
O6		False				
O7		False				
O8		False				
O9		False				
O10		False				
O11		False				
O12		False				
O13		False				
O14		False				
O15		False				
O16		False				
SRGAPC1: 1						
SR(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC2: 2						
SR(2)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC3: 3						
SR(3)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC1: 1						
MV(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC2: 2						
MV(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC3: 3						
MV(3)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q6		False				
Q7		False				
Q8		False				
MVGAPC4: 4						
MV(4)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Inputs						
ENA_OPEN		True				
ENA_CLOSE		True				
BLK_OPEN		False				
BLK_CLOSE		False				
SYNC_OK		True				
SYNC_BYPASS		False				
ITL_BYPASS		False				
Outputs						
SELECTED		False				
EXE_OP		False				
EXE_CL		False				
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
OPEN_ENAD		False				
CLOSE_ENAD		False				
CTL_ITL_BLKD		False				
Monitored data						
POSITION		intermediate				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
DCSXSWI1: 1						
I<->O DC(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
ESSXSWI1: 1						
I<->O ES(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
25; SECRSYN1: 1						
SYNC(1)						
Inputs						
BLOCK		False				
CL_COMMAND		False				
BYPASS		False				
Outputs						
SYNC_INPRO		False				
SYNC_OK		False				
CL_FAIL_AL		False				
CMD_FAIL_AL		False				
LLDB		False				
LLLB		False				
DLLB		False				
DLDB		False				
Monitored data						
ENERG_STATE		Unknown				
U_DIFF_MEAS		0,00	xUn	-3,00	3,00	
FR_DIFF_MEAS		0,000	xFn	-1,500	1,500	
PH_DIFF_MEAS		0,00	deg	-180,00	180,00	
U_DIFF_SYNC		False				
PH_DIF_SYNC		False				
FR_DIFF_SYNC		False				
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
51-1; PHLPTOC1: 1						
3I>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
67-1; DPHLPDOC1: 1						
3I>->(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
NON_DIR		False				
Outputs						
OPERATE		False				
START		False				
FAULT_DIR		unknown				
DIRECTION		unknown				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
DIR_A		unknown				
DIR_B		unknown				
DIR_C		unknown				
ANGLE_A		0,00	deg	-180,00	180,00	
ANGLE_B		0,00	deg	-180,00	180,00	
ANGLE_C		0,00	deg	-180,00	180,00	
VMEM_USED		False				
67-2; DPHLPDOC2: 2						
3I>->(2)						
Inputs						
BLOCK		False				
ENA_MULT		False				
NON_DIR		False				
Outputs						
OPERATE		False				
START		False				
FAULT_DIR		unknown				
DIRECTION		unknown				
Monitored data						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
START_DUR		0,00	%	0,00	100,00	
DIR_A		unknown				
DIR_B		unknown				
DIR_C		unknown				
ANGLE_A		0,00	deg	-180,00	180,00	
ANGLE_B		0,00	deg	-180,00	180,00	
ANGLE_C		0,00	deg	-180,00	180,00	
VMEM_USED		False				
68; INRPHAR1: 1						
3I2f>(1)						
Inputs						
BLOCK		False				
Outputs						
BLK2H		False				
51N; EFLPTOC1: 1						
Io>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Voltage protection						
59N-1; ROVPTOV1: 1						
Uo>(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59-1; PHPTOV1: 1						
3U>(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59-2; PHPTOV2: 2						
3U>(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-1; PHPTUV1: 1						
3U<(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-2; PHPTUV2: 2						
3U<(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Inputs						
BLOCK		False				
START		False				
POSCLOSE		False				
CB_FAULT		False				
Outputs						
CB_FAULT_AL		False				
TRBU		False				
TRRET		False				
ARC BUSBAR; ARCSARC1: 11						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ARC(1)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CB; ARCSARC2: 21						
ARC(2)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Inputs						
BLOCK		False				
OPERATE		False				
RST_LKOUT		False				
Outputs						
TRIP		False				
CL_LKOUT		False				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Inputs						
BLOCK		False				
POSOPEN		False				
POSCLOSE		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPEN_CB_EXE		False				
CLOSE_CB_EXE		False				
PRES_ALM_IN		False				
PRES_LO_IN		False				
RST_IPOW		False				
RST_CB_WEAR		False				
RST_TRV_T		False				
RST_SPR_T		False				
Outputs						
TRV_T_OP_ALM		False				
TRV_T_CL_ALM		False				
SPR_CHR_ALM		False				
OPR_ALM		False				
OPR_LO		False				
IPOW_ALM		False				
IPOW_LO		False				
CB_LIFE_ALM		False				
MON_ALM		False				
PRES_ALM		False				
PRES_LO		False				
OPENPOS		False				
INVALIDPOS		False				
CLOSEPOS		False				
Monitored data						
T_TRV_OP		0	ms	0	60000	
T_TRV_CL		0	ms	0	60000	
T_SPR_CHR		0,00	s	0,00	99,99	
NO_OPR		0		0	99999	
INA_DAYS		0		0	9999	
CB_LIFE_A		0		-99999	99999	
CB_LIFE_B		0		-99999	99999	
CB_LIFE_C		0		-99999	99999	
IPOW_A		0,000		0,000	30000,000	
IPOW_B		0,000		0,000	30000,000	
IPOW_C		0,000		0,000	30000,000	
Supervision						
TCSSCBR1: 1						
TCS(1)						
Inputs						
BLOCK		False				
Outputs						
ALARM		False				
CCSPVC1: 1						
MCS 3I(1)						
Inputs						
BLOCK		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
FAIL		False				
ALARM		False				
Monitored data						
IDIFF		0,00	xIn	0,00	40,00	
SEQSPVC1: 1						
FUSEF(1)						
Inputs						
BLOCK		False				
CB_CLOSED		False				
DISCON_OPEN		False				
MINCB_OPEN		False				
Outputs						
FUSEF_3PH		False				
FUSEF_U		False				
Communication						
GSELPRT1: 1						
GSE(1)						
Outputs						
ALARM		False				
Monitoring						
Reset counters		False				
Received msgs		0		0	10000000	
Transmitted msgs		0		0	10000000	
State changes		0		0	10000000	
SeqNum changes		0		0	10000000	
Test msgs		0		0	10000000	
State warnings		0		0	10000000	
Seq. warnings		0		0	10000000	
Recv. timeouts		0		0	10000000	
ConfRev errors		0		0	10000000	
NdsComm errors		0		0	10000000	
Dataset errors		0		0	10000000	
Replay Prot warnings		0		0	10000000	
Generic timers						
TONGAPC1: 1						
TON(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TONGAPC2: 2						
TON(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
T_LEFT8		0	s	0	3600	
TOFGAPC1: 1						
TOF(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TOFGAPC2: 2						
TOF(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC1: 1						
PT(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC2: 2						
PT(2)						
Inputs						
IN1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
FB status						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Current protection						
3I>>>(1)		on				
51-1; PHLPTOC1: 1						
3I>(1)						
Current protection						
3I>(1)		on				
67-1; DPHLPDOC1: 1						
3I>->(1)						
Current protection						
3I>->(1)		on				
67-2; DPHLPDOC2: 2						
3I>->(2)						
Current protection						
3I>->(2)		on				
68; INRPHAR1: 1						
3I2f>(1)						
Current protection						
3I2f>(1)		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
51N; EFLPTOC1: 1						
Io>(1)						
Current protection						
Io>(1)		on				
59-1; PHPTOV1: 1						
3U>(1)						
Voltage protection						
3U>(1)		on				
59-2; PHPTOV2: 2						
3U>(2)						
Voltage protection						
3U>(2)		on				
27-1; PHPTUV1: 1						
3U<(1)						
Voltage protection						
3U<(1)		on				
27-2; PHPTUV2: 2						
3U<(2)						
Voltage protection						
3U<(2)		on				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Voltage protection						
Uo>(1)		on				
59N-2; ROVPTOV2: 2						
Uo>(2)						
Voltage protection						
Uo>(2)		on				
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Other protection						
3I>/Io>BF(1)		on				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Other protection						
ARC(1)		on				
ARC CB; ARCSARC2: 21						
ARC(2)						
Other protection						
ARC(2)		on				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Other protection						
ARC(3)		on				
25; SECRSYN1: 1						
SYNC(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Control						
SYNC(1)		on				
TRPPTRC1: 1						
Master Trip(1)						
Trip logic						
Master Trip(1)		on				
SSCBR1: 1						
CBCM(1)						
Condition monitoring						
CBCM(1)		on				
TCSSCBR1: 1						
TCS(1)						
Supervision						
TCS(1)		on				
CCSPVC1: 1						
MCS 3I(1)						
Supervision						
MCS 3I(1)		on				
SEQSPVC1: 1						
FUSEF(1)						
Supervision						
FUSEF(1)		on				
Recorded data						
Measurements						
CMMXU1: 1						
3I(1)						
Max demand IL1		0,00	xIn	0,00	40,00	
Max demand IL2		0,00	xIn	0,00	40,00	
Max demand IL3		0,00	xIn	0,00	40,00	
Min demand IL1		0,00	xIn	0,00	40,00	
Min demand IL2		0,00	xIn	0,00	40,00	
Min demand IL3		0,00	xIn	0,00	40,00	
Time max demand IL1		0			34 characters	
Time max demand IL2		0			34 characters	
Time max demand IL3		0			34 characters	
Time min demand IL1		0			34 characters	
Time min demand IL2		0			34 characters	
Time min demand IL3		0			34 characters	
RESCMMXU1: 1						
Io(1)						
Max demand Io		0,00	xIn	0,00	40,00	
Min demand Io		0,00	xIn	0,00	40,00	
Time max demand Io		0			34 characters	
Time min demand Io		0			34 characters	
PEMMXU1: 1						
P,E(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Max demand S		0,0	kVA	-999999,9	999999,9	
Min demand S		0,0	kVA	-999999,9	999999,9	
Max demand P		0,0	kW	-999999,9	999999,9	
Min demand P		0,0	kW	-999999,9	999999,9	
Max demand Q		0,0	kVAr	-999999,9	999999,9	
Min demand Q		0,0	kVAr	-999999,9	999999,9	
Time max dmd S		0			34 characters	
Time min dmd S		0			34 characters	
Time max dmd P		0			34 characters	
Time min dmd P		0			34 characters	
Time max dmd Q		0			34 characters	
Time min dmd Q		0			34 characters	
FLTRFRC1: 1						
FLTRFRC1						
Fault record						
Fault number		0		0	999999	
Time and date		0			34 characters	
Protection (rec. set 1)		None				
Protection (rec. set 2)		None				
Start duration		0,00	%	0,00	100,00	
Operate time		0,000	s	0,000	999999,999	
Breaker clear time		0,000	s	0,000	3,000	
Fault distance		0,00	pu	0,00	3000,00	
Fault resistance		0,00	ohm	0,00	3000,00	
Fault reactance		0,00	ohm	0,00	3000,00	
Active group		1		1	6	
Shot pointer		1		1	7	
Max diff current IL1:1		0,000	pu	0,000	80,000	
Max diff current IL2:1		0,000	pu	0,000	80,000	
Max diff current IL3:1		0,000	pu	0,000	80,000	
Diff current IL1:1		0,000	pu	0,000	80,000	
Diff current IL2:1		0,000	pu	0,000	80,000	
Diff current IL3:1		0,000	pu	0,000	80,000	
Max bias current IL1:1		0,000	pu	0,000	50,000	
Max bias current IL2:1		0,000	pu	0,000	50,000	
Max bias current IL3:1		0,000	pu	0,000	50,000	
Bias current IL1:1		0,000	pu	0,000	50,000	
Bias current IL2:1		0,000	pu	0,000	50,000	
Bias current IL3:1		0,000	pu	0,000	50,000	
Diff current Io:1		0,000	pu	0,000	80,000	
Bias current Io:1		0,000	pu	0,000	50,000	
Max current IL1:1		0,000	xIn	0,000	50,000	
Max current IL2:1		0,000	xIn	0,000	50,000	
Max current IL3:1		0,000	xIn	0,000	50,000	
Max current Io:1		0,000	xIn	0,000	50,000	
Current IL1:1		0,000	xIn	0,000	50,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Current IL2:1		0,000	xIn	0,000	50,000	
Current IL3:1		0,000	xIn	0,000	50,000	
Current Io:1		0,000	xIn	0,000	50,000	
Current Io-Calc:1		0,000	xIn	0,000	50,000	
Current Ps-Seq:1		0,000	xIn	0,000	50,000	
Current Ng-Seq:1		0,000	xIn	0,000	50,000	
Max current IL1:2		0,000	xIn	0,000	50,000	
Max current IL2:2		0,000	xIn	0,000	50,000	
Max current IL3:2		0,000	xIn	0,000	50,000	
Max current Io:2		0,000	xIn	0,000	50,000	
Current IL1:2		0,000	xIn	0,000	50,000	
Current IL2:2		0,000	xIn	0,000	50,000	
Current IL3:2		0,000	xIn	0,000	50,000	
Current Io:2		0,000	xIn	0,000	50,000	
Current Io-Calc:2		0,000	xIn	0,000	50,000	
Current Ps-Seq:2		0,000	xIn	0,000	50,000	
Current Ng-Seq:2		0,000	xIn	0,000	50,000	
Max current IL1:3		0,000	xIn	0,000	50,000	
Max current IL2:3		0,000	xIn	0,000	50,000	
Max current IL3:3		0,000	xIn	0,000	50,000	
Max current Io:3		0,000	xIn	0,000	50,000	
Current IL1:3		0,000	xIn	0,000	50,000	
Current IL2:3		0,000	xIn	0,000	50,000	
Current IL3:3		0,000	xIn	0,000	50,000	
Current Io:3		0,000	xIn	0,000	50,000	
Current Io-Calc:3		0,000	xIn	0,000	50,000	
Current Ps-Seq:3		0,000	xIn	0,000	50,000	
Current Ng-Seq:3		0,000	xIn	0,000	50,000	
Voltage UL1:1		0,000	xUn	0,000	4,000	
Voltage UL2:1		0,000	xUn	0,000	4,000	
Voltage UL3:1		0,000	xUn	0,000	4,000	
Voltage U12:1		0,000	xUn	0,000	4,000	
Voltage U23:1		0,000	xUn	0,000	4,000	
Voltage U31:1		0,000	xUn	0,000	4,000	
Voltage Uo:1		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:1		0,000	xUn	0,000	4,000	
Voltage UL1:2		0,000	xUn	0,000	4,000	
Voltage UL2:2		0,000	xUn	0,000	4,000	
Voltage UL3:2		0,000	xUn	0,000	4,000	
Voltage U12:2		0,000	xUn	0,000	4,000	
Voltage U23:2		0,000	xUn	0,000	4,000	
Voltage U31:2		0,000	xUn	0,000	4,000	
Voltage Uo:2		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:2		0,000	xUn	0,000	4,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage Ps-Seq:2		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:2		0,000	xUn	0,000	4,000	
Voltage UL1:3		0,000	xUn	0,000	4,000	
Voltage UL2:3		0,000	xUn	0,000	4,000	
Voltage UL3:3		0,000	xUn	0,000	4,000	
Voltage UL12:3		0,000	xUn	0,000	4,000	
Voltage UL23:3		0,000	xUn	0,000	4,000	
Voltage UL31:3		0,000	xUn	0,000	4,000	
Voltage Uo:3		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:3		0,000	xUn	0,000	4,000	
PTTR thermal level		0,00		0,00	99,99	
I2/I1>(1) rat. I2/I1		0,00	%	0,00	999,99	
Frequency:1		50,00	Hz	0,00	80,00	
Frequency gradient:1		0,00	Hz/s	-10,00	10,00	
Frequency:2		50,00	Hz	0,00	80,00	
Frequency gradient:2		0,00	Hz/s	-10,00	10,00	
Frequency:3		50,00	Hz	0,00	80,00	
Frequency gradient:3		0,00	Hz/s	-10,00	10,00	
Conductance Yo		0,00	mS	-1000,00	1000,00	
Susceptance Yo		0,00	mS	-1000,00	1000,00	
Angle Uo:1 - Io:1		0,00	deg	-180,00	180,00	
Angle U23:1- IL1:1		0,00	deg	-180,00	180,00	
Angle U31:1 - IL2:1		0,00	deg	-180,00	180,00	
Angle U12:1 - IL3:1		0,00	deg	-180,00	180,00	
Angle Uo:2 - Io:2		0,00	deg	-180,00	180,00	
Angle U23:2 - IL1:2		0,00	deg	-180,00	180,00	
Angle U31:2 - IL2:2		0,00	deg	-180,00	180,00	
Angle U12:2 - IL3:2		0,00	deg	-180,00	180,00	
Angle Uo:3 - Io:3		0,00	deg	-180,00	180,00	
Angle U23:3 - IL1:3		0,00	deg	-180,00	180,00	
Angle U31:3 - IL2:3		0,00	deg	-180,00	180,00	
Angle U12:3 - IL3:3		0,00	deg	-180,00	180,00	
Control command						
Control: 0						
Control						
LR state		Remote				
Detached LHMI						
EIHMI1: 1						
EIHMI1						
CONNECTION		False				
Service port IP address		0			20 characters	
Main unit port IP address		0			20 characters	
Setting group: 0						
Setting group						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
SG_LOGIC_SEL		False				
SG_1_ACT		False				
SG_2_ACT		False				
SG_3_ACT		False				
SG_4_ACT		False				
SG_5_ACT		False				
SG_6_ACT		False				
Programmable LEDs: 1						
Programmable LEDs						
Inputs						
LED 1						
OK		False				
ALARM		False				
RESET		False				
LED 2						
OK		False				
ALARM		False				
RESET		False				
LED 3						
OK		False				
ALARM		False				
RESET		False				
LED 4						
OK		False				
ALARM		False				
RESET		False				
LED 5						
OK		False				
ALARM		False				
RESET		False				
LED 6						
OK		False				
ALARM		False				
RESET		False				
LED 7						
OK		False				
ALARM		False				
RESET		False				
LED 8						
OK		False				
ALARM		False				
RESET		False				
LED 9						
OK		False				
ALARM		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
RESET		False				
LED 10						
OK		False				
ALARM		False				
RESET		False				
LED 11						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 1		None				
Programmable LED 2		None				
Programmable LED 3		None				
Programmable LED 4		None				
Programmable LED 5		None				
Programmable LED 6		None				
Programmable LED 7		None				
Programmable LED 8		None				
Programmable LED 9		None				
Programmable LED 10		None				
Programmable LED 11		None				
Programmable LEDs: 2						
Programmable LEDs						
Inputs						
LED 12						
OK		False				
ALARM		False				
RESET		False				
LED 13						
OK		False				
ALARM		False				
RESET		False				
LED 14						
OK		False				
ALARM		False				
RESET		False				
LED 15						
OK		False				
ALARM		False				
RESET		False				
LED 16						
OK		False				
ALARM		False				
RESET		False				
LED 17						
OK		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ALARM		False				
RESET		False				
LED 18						
OK		False				
ALARM		False				
RESET		False				
LED 19						
OK		False				
ALARM		False				
RESET		False				
LED 20						
OK		False				
ALARM		False				
RESET		False				
LED 21						
OK		False				
ALARM		False				
RESET		False				
LED 22						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 12		None				
Programmable LED 13		None				
Programmable LED 14		None				
Programmable LED 15		None				
Programmable LED 16		None				
Programmable LED 17		None				
Programmable LED 18		None				
Programmable LED 19		None				
Programmable LED 20		None				
Programmable LED 21		None				
Programmable LED 22		None				
IED status: 1						
IED status						
CAM						
UAM mode		Local				
CAM server1		Offline				
CAM server2		Offline				
Replication		N.A.				
Last update		0			34 characters	
PKI						
CA Server Status		Offline				
Time synchronization						
PTP P2P delay X1		0	ns	-2147483648	2147483647	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PTP P2P delay X2		0	ns	-2147483648	2147483647	
PTP P2P delay X3		0	ns	-2147483648	2147483647	
Self-supervision						
Warning		All ok				
Internal Fault		All ok				
Boot up time		0			34 characters	
Boot up reason		None				
Device state		on				
Composition changes						
No of comp. changes		0		0	100000	
Setting changes						
Setting changes		0		0	20000	
Setting time		0			34 characters	
SMV accuracy						
SMV Synch accuracy		InternalClock				
Local synch accuracy		0	us	0	1000000000	
Max Dev synch Acc		0	us	0	1000000000	
Information						
HW modules						
Slot B (BIO): 1						
Slot B (BIO)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot C (BIO): 1						
Slot C (BIO)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot D (BIO): 1						
Slot D (BIO)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot E (AIM): 1						
Slot E (AIM)						
Article number		0			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot F (AIM): 1						
Slot F (AIM)						
Article number		0			20 characters	
SW version		-			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot G (PSM): 1						
Slot G (PSM)						
Article number		0			20 characters	
SW version		-			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
EIHMI1: 1						
EIHMI1						
Detached LHMI						
Article number		0			20 characters	
Application version		0			20 characters	
Firmware version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Service port MAC address		0			20 characters	
Main unit port MAC address		0			20 characters	
Slot A1 (ARC): 1						
Slot A1 (ARC)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot A2 (COM): 1						
Slot A2 (COM)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Product identifiers: 0						
Product identifiers						
Type		REX640			20 characters	
Product version		0			64 characters	
Serial number		1XXXXXXXXXXX			20 characters	
Production date		0			34 characters	
SW version		X.X			20 characters	
SW date		0			34 characters	
SW number		2RCA057448A			20 characters	
Interface level		0			64 characters	
Order code		XXXXXXXXXXXXXXXXX			20 characters	
Site identifiers: 0						
Site identifiers						
Customer name		0			20 characters	
Street		0			20 characters	
House number		0			20 characters	
ZIP/Postal code		0			20 characters	
City/Province		0			20 characters	
State		0			20 characters	
Country		0			20 characters	
System identifiers: 0						
System identifiers						
Technical key		TIGER			20 characters	
IEC 61850 version		Edition 2			24 characters	
Engineering model		ABB				
HW modules: 0						
HW modules						
Main board						
Article number		2RAAXXXXXX			20 characters	
SW version		A			20 characters	
HW revision		X			20 characters	
Serial number		1XXXXXXXXXXX			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Clear						
Disturbance recorder: 0						
Disturbance recorder						
Disturbance records		Cancel				
Clear: 0						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Clear						
Indications and LEDs		Cancel				
Programmable LEDs		Cancel				
Events		Cancel				
Metering records		Cancel				
Power quality data		Cancel				
FLTRFRC1: 1						
FLTRFRC1						
Fault records		Cancel				
LDPRLRC1: 1						
LDPRLRC1						
Load Profile record		Cancel				
TRPPTRC1: 1						
Master Trip(1)						
Master Trip(1)		Cancel				
SSCBR1: 1						
CBCM(1)						
CBCM(1) acc.energy		Cancel				
CBCM(1) rem.life		Cancel				
CBCM(1) travel times		Cancel				
CBCM(1) spr.charge t		Cancel				
PEMMXU1: 1						
P,E(1)						
P,E(1) acc.energy		Cancel				
Application Configuration						
General						
Settings						
Setting group						
Protection: 0						
Setting group						
Active group		1		1	6	
Protection						
Settings						
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		4,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 2						
Start value		4,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operate delay time		250	ms	20	300000	
settingGroup 3						
Start value		4,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 4						
Start value		4,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 5						
Start value		4,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 6						
Start value		4,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
51-1; PHLPTOC1: 1						
3I>(1)						
Operation		on				
Num of start phases		1 out of 3				
Minimum operate time		250	ms	20	60000	
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	50000,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	6,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		1,20	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 2						
Start value		1,20	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 3						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 4						
Start value		1,20	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 5						
Start value		1,20	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 6						
Start value		1,20	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
67-1; DPHLPDOC1: 1						
3I>->(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Allow Non Dir		False				
Min operate current		0,010	xIn	0,010	1,000	
Min operate voltage		0,010	xUn	0,010	1,000	
settingGroup 1						
Start value		1,00	xIn	0,05	10,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 2						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 3						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 4						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 5						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 6						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
67-2; DPHLPDOC2: 2						
3I>->(2)						
Operation		on				
Num of start phases		1 out of 3				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Allow Non Dir		False				
Min operate current		0,010	xIn	0,010	1,000	
Min operate voltage		0,010	xUn	0,010	1,000	
settingGroup 1						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 2						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 3						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 4						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 5						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 6						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
68; INRPHAR1: 1						
3I2f>(1)						
Operation		off				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 2						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 3						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 4						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 5						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 6						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
51N; EFLPTOC1: 1						
Io>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage protection						
59-1; PHPTOV1: 1						
3U>(1)						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
59-2; PHPTOV2: 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
3U>(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC Def. Time				
27-1; PHPTUV1: 1						
3U<(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage block value		0,20	xUn	0,05	1,00	
Enable block value		True				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
settingGroup 6						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
27-2; PHPTUV2: 2						
3U<(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage block value		0,20	xUn	0,05	1,00	
Enable block value		True				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,50	xUn	0,05	1,20	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 6						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 4						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 6						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Operation		off				
Current value		0,300	xIn	0,050	2,000	
Current value Res		0,30	xIn	0,05	2,00	
CB failure trip mode		1 out of 3				
CB failure mode		Current				
CB fail retrip mode		Off				
Retrip time		120	ms	0	60000	
CB failure delay		240	ms	0	60000	
CB fault delay		5000	ms	0	60000	
Measurement mode		Peak-to-Peak				
Trip pulse time		200	ms	0	60000	
Start latching mode		Rising edge				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CB; ARCSARC2: 21						
ARC(2)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Control						
25; SECRSYN1: 1						
SYNC(1)						
Operation		on				
Synchro check mode		Asynchronous				
Control mode		Continuous				
Dead line value		0,1	xUn	0,1	0,8	
Live line value		0,5	xUn	0,2	1,0	
Dead bus value		0,1	xUn	0,1	0,8	
Live bus value		0,5	xUn	0,2	1,0	
Max energizing V		1,11	xUn	0,50	1,15	
Phase shift		0	deg	-180	180	
Minimum Syn time		10000	ms	0	60000	
Energizing time		100	ms	100	60000	
Closing time of CB		50	ms	40	250	
Voltage source switch		False				
settingGroup 1						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 2						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 3						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Difference angle		5	deg	5	90	
settingGroup 4						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 5						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 6						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	

Settings

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
REX640_A3						
IED Configuration						
HW Configuration						
Slot B (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot C (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot D (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input inversion						
Input 1 inversion		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
POSITION		intermediate				
SPCGAPC1: 1						
SPC(1)						
TRIG 1		False				
TRIG 2		False				
TRIG 3		False				
TRIG 4		False				
TRIG 5		False				
TRIG 6		False				
TRIG 7		False				
TRIG 8		False				
TRIG 9		False				
TRIG 10		False				
TRIG 11		False				
TRIG 12		False				
TRIG 13		False				
TRIG 14		False				
TRIG 15		False				
TRIG 16		False				
Measurements						
PEMMXU1: 1						
P,E(1)						
S-kVA:1		0,0	kVA	-999999,9	999999,9	
P-kW:1		0,0	kW	-999999,9	999999,9	
Q-kVAr:1		0,0	kVAr	-999999,9	999999,9	
PF:1		0,00		-1,00	1,00	
CMMXU1: 1						
3I(1)						
IL1-A:1		0,00	xIn	0,00	40,00	
IL2-A:1		0,00	xIn	0,00	40,00	
IL3-A:1		0,00	xIn	0,00	40,00	
RESCMMXU1: 1						
Io(1)						
Io-A:1		0,00	xIn	0,00	40,00	
RESVMMXU1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Uo(1)						
Uo-kV:1		0,00	xUn	0,00	4,00	
VMMXU1: 1						
3U(1)						
U12-kV:1		0,00	xUn	0,00	4,00	
U23-kV:1		0,00	xUn	0,00	4,00	
U31-kV:1		0,00	xUn	0,00	4,00	
UL1-kV:1		0,00	xUn	0,00	5,00	
UL2-kV:1		0,00	xUn	0,00	5,00	
UL3-kV:1		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
U12-kV:2		0,00	xUn	0,00	4,00	
U23-kV:2		0,00	xUn	0,00	4,00	
U31-kV:2		0,00	xUn	0,00	4,00	
UL1-kV:2		0,00	xUn	0,00	5,00	
UL2-kV:2		0,00	xUn	0,00	5,00	
UL3-kV:2		0,00	xUn	0,00	5,00	
FMMXU1: 1						
f(1)						
f-Hz:1		50,00	Hz	35,00	75,00	
CSMSQI1: 1						
I1,I2,I0(1)						
NgSeq-A:1		0,00	xIn	0,00	40,00	
PsSeq-A:1		0,00	xIn	0,00	40,00	
ZrSeq-A:1		0,00	xIn	0,00	40,00	
VSMSQI1: 1						
U1,U2,U0(1)						
NgSeq-kV:1		0,00	xUn	0,00	4,00	
PsSeq-kV:1		0,00	xUn	0,00	4,00	
ZrSeq-kV:1		0,00	xUn	0,00	4,00	
Disturbance records						
Disturbance recorder: 0						
Disturbance recorder						
Number of recordings		0		0	100	
Rem. amount of rec.		0		0	100	
Rec. memory used		0	%	0	100	
Trig recording		Cancel				
Time to trigger		0	s	0	604800	
Configuration						
Disturbance recorder: 0						
Disturbance recorder						
General						
Operation		on				
Record length		50	cycles	10	500	
Pre-trg length		50	%	0	100	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Overwrite				
Exclusion time		0	ms	0	1000000	
Storage rate		32 samples / cycle				
Periodic trig time		0	s	0	604800	
Stor. mode periodic		Waveform				
Stor. mode manual		Waveform				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Operation		on				
Select timeout		30000	ms	10000	300000	
Pulse length		200	ms	10	60000	
Operation counter		0		0	99999	
Control model		sbo-with-enhanced-security				
Adaptive pulse		True				
Event delay		200	ms	0	10000	
Operation timeout		500	ms	10	6000000	
Interlocking Pls Len		2	s	1	10	
Identification		CBXCBR1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
General: 0						
Control						
General						
LR control		Binary input				
Station authority		L,R				
Control mode		On				
DCSXSWI1: 1						
I<->O DC(1)						
Event delay		30000	ms	0	60000	
Identification		DCSXSWI1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
ESSXSWI1: 1						
I<->O ES(1)						
Event delay		30000	ms	0	60000	
Identification		ESSXSWI1 switch position			255 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
System						
Control: 0						
Control						
Rated frequency		50Hz				
Phase rotation		ABC				
Blocking mode		Freeze timer				
Bay name		REX640_A3			20 characters	
IDMT Sat point		50	I/I>	10	50	
Frequency adaptivity		Disable				
SMV Max Delay		3/3 ms				
Test mode selection		Local				
HMI						
EIHMI1: 1						
EIHMI1						
Backlight brightness		100	%	1	100	
Enable USB access		No				
Enable HMI service port		Yes				
Communication						
Ethernet						
Rate Limiter: 1						
Rate Limiter						
Rate limiter						
Rate limit ctrl		False				
RCHLCCH1: 1						
RCHLCCH1						
Redundancy						
Redundant mode		None				
Filter						
Filter mode A_B		Off				
Rate limiter						
GOOSE rate limit A_B		10,000		0,512	90,000	
SMV rate limit A_B		70,000		0,512	90,000	
Def. rate limit A_B		8,000		0,512	90,000	
SCHLCCH1: 1						
SCHLCCH1						
Port modes						
Port mode X1		On				
Filter						
Filter mode X1		Off				
Rate limiter						
GOOSE rate limit X1		10,000		0,512	90,000	
SMV rate limit X1		70,000		0,512	90,000	
Def. rate limit X1		8,000		0,512	90,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SCHLCCH2: 2						
SCHLCCH2						
Port modes						
Port mode X2		On				
Filter						
Filter mode X2		Off				
Rate limiter						
GOOSE rate limit X2		10,000		0,512	90,000	
SMV rate limit X2		70,000		0,512	90,000	
Def. rate limit X2		8,000		0,512	90,000	
SCHLCCH3: 3						
SCHLCCH3						
Port modes						
Port mode X3		On				
Filter						
Filter mode X3		Off				
Rate limiter						
GOOSE rate limit X3		10,000		0,512	90,000	
SMV rate limit X3		70,000		0,512	90,000	
Def. rate limit X3		8,000		0,512	90,000	
Network1: 1						
Network1						
Network1 address						
IP address		192.168.10.7				
Subnet mask		255.255.255.224				
Default gateway		192.168.10.30				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
Network2: 2						
Network2						
Network2 address						
Enable		False				
IP address		192.168.3.10				
Subnet mask		255.255.255.0				
Default gateway		0.0.0.0			16 characters	
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
HMI: 1						
HMI						
HMI address						
IP address		192.168.0.254				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Protocols						
GSELPRT1: 1						
GSE(1)						
GOOSE						
Change det. interval		500	ms	50	1000	
MMSLPRT1: 1						
MMS(1)						
MMS						
Unit mode		Nominal				
Network1						
MMS		On				
HMI port						
MMS		On				
FTPLPRT1: 1						
FTPLPRT1						
Network1						
FTP		Secure				
HMI port						
FTP		Secure				
HTTPLPRT1: 1						
HTTPLPRT1						
Network1						
HTTPS		On				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Network1						
Modbus		On				
MBSLPRT2: 2						
MBSLPRT2						
Modbus (2)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Analog inputs						
Current (3I): 1						
Current (3I)						
Current input type		Current trafo				
Primary current		150,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		True				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Current (Io): 1						
Current (Io)						
Current input type		Current trafo				
Primary current		100,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		False				
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage (3U): 1						
Voltage (3U)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (3UB): 2						
Voltage (3UB)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (Uo): 1						
Voltage (Uo)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Voltage (UoB): 2						
Voltage (UoB)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Measurements						
CMMXU1: 1						
3I(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
A high high limit		1,40	xIn	0,00	40,00	
A high limit		1,20	xIn	0,00	40,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A low limit		0,00	xIn	0,00	40,00	
A low low limit		0,00	xIn	0,00	40,00	
A deadband		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESCMMXU1: 1						
Io(1)						
Operation		on				
Measurement mode		DFT				
A Hi high limit res		0,20	xIn	0,00	40,00	
A high limit res		0,05	xIn	0,00	40,00	
A deadband res		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESVMMXU1: 1						
Uo(1)						
Operation		on				
Measurement mode		DFT				
V Hi high limit res		0,20	xUn	0,00	4,00	
V high limit res		0,05	xUn	0,00	4,00	
V deadband res		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU1: 1						
3U(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		3 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,20	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU2: 2						
3U(2)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,00	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time		0	ms	0	1800000	
FMMXU1: 1						
f(1)						
Operation		on				
F high high limit		60,00	Hz	35,00	75,00	
F high limit		55,00	Hz	35,00	75,00	
F low limit		45,00	Hz	35,00	75,00	
F low low limit		40,00	Hz	35,00	75,00	
F deadband		1000		100	100000	
Def frequency Sel		Nominal				
PEMMXU1: 1						
P,E(1)						
Operation		on				
Power unit Mult		k				
Energy unit Mult		k				
Active power Dir		Forward				
Reactive power Dir		Forward				
Power deadband		10000		1000	10000	
Forward Wh Initial		0		0	999999999	
Reverse Wh Initial		0		0	999999999	
Forward VArh Initial		0		0	999999999	
Reverse VArh Initial		0		0	999999999	
Measurement mode		PhsA, PhsB, PhsC				
Pulse quantity		100000	Wh/VArh	1	10000000	
Pulse on time		1,000	s	0,050	60,000	
Pulse off time		0,500	s	0,050	60,000	
CSMSQI1: 1						
I1,I2,I0(1)						
Operation		on				
Ps Seq A Hi high Lim		1,40	xIn	0,00	40,00	
Ps Seq A high limit		1,20	xIn	0,00	40,00	
Ps Seq A low limit		0,00	xIn	0,00	40,00	
Ps Seq A low low Lim		0,00	xIn	0,00	40,00	
Ps Seq A deadband		2500		100	100000	
Ng Seq A Hi high Lim		0,20	xIn	0,00	40,00	
Ng Seq A High limit		0,05	xIn	0,00	40,00	
Ng Seq A low limit		0,00	xIn	0,00	40,00	
Ng Seq A low low Lim		0,00	xIn	0,00	40,00	
Ng Seq A deadband		2500		100	100000	
Zro A Hi high Lim		0,20	xIn	0,00	40,00	
Zro A High limit		0,05	xIn	0,00	40,00	
Zro A low limit		0,00	xIn	0,00	40,00	
Zro A low low Lim		0,00	xIn	0,00	40,00	
Zro A deadband		2500		100	100000	
Ps Seq A on delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Ps Seq A off delay time		0	ms	0	1800000	
Ng Seq A on delay time		0	ms	0	1800000	
Ng Seq A off delay time		0	ms	0	1800000	
Zro A on delay time		0	ms	0	1800000	
Zro A off delay time		0	ms	0	1800000	
VSMSQI1: 1						
U1,U2,U0(1)						
Operation		on				
Ps Seq V Hi high Lim		1,40	xUn	0,00	4,00	
Ps Seq V high limit		1,20	xUn	0,00	4,00	
Ps Seq V low limit		0,00	xUn	0,00	4,00	
Ps Seq V low low Lim		0,00	xUn	0,00	4,00	
Ps Seq V deadband		10000		100	100000	
Ng Seq V Hi high Lim		0,20	xUn	0,00	4,00	
Ng Seq V High limit		0,05	xUn	0,00	4,00	
Ng Seq V low limit		0,00	xUn	0,00	4,00	
Ng Seq V low low Lim		0,00	xUn	0,00	4,00	
Ng Seq V deadband		10000		100	100000	
Zro V Hi high Lim		0,20	xUn	0,00	4,00	
Zro V High limit		0,05	xUn	0,00	4,00	
Zro V low limit		0,00	xUn	0,00	4,00	
Zro V low low Lim		0,00	xUn	0,00	4,00	
Zro V deadband		10000		100	100000	
Ps Seq V on delay time		0	ms	0	1800000	
Ps Seq V off delay time		0	ms	0	1800000	
Ng Seq V on delay time		0	ms	0	1800000	
Ng Seq V off delay time		0	ms	0	1800000	
Zro V on delay time		0	ms	0	1800000	
Zro V off delay time		0	ms	0	1800000	
Demand metering: 0						
Demand metering						
Demand interval		1 minute				
A demand Av mode		Linear				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Operation		on				
Trip pulse time		250	ms	20	60000	
Trip output mode		Non-latched				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Operation		on				
Acc stop current		10,00	A	5,00	500,00	
Open alarm time		40	ms	0	200	
Close alarm time		40	ms	0	200	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Opening time Cor		10	ms	-100	100	
Closing time Cor		10	ms	-100	100	
Spring charge time		15	s	0	60	
Counter initial Val		0		0	99999	
Alarm Op number		200		0	99999	
Lockout Op number		300		0	99999	
Current exponent		2,00		0,00	5,00	
Difference Cor time		5	ms	-10	10	
Alm Acc currents Pwr		2500,00		0,00	20000,00	
LO Acc currents Pwr		2500,00		0,00	20000,00	
Ini Acc currents Pwr		0,00		0,00	20000,00	
Initial CB Rmn life		5000		0	99999	
Rated Op current		1000,00	A	100,00	6300,00	
Rated fault current		5000,00	A	500,00	99999,00	
Op number rated		10000		1	99999	
Op number fault		1000		1	10000	
Life alarm level		500		0	99999	
Pressure alarm time		10	ms	0	60000	
Pres lockout time		10	ms	0	60000	
Inactive Alm days		2000		0	9999	
Ini inactive days		0		0	9999	
Inactive Alm hours		0	h	0	23	
Travel time Clc mode		From Pos to Pos				
Supervision						
TCSSCBR1: 1						
TCS(1)						
Operation		off				
Operate delay time		3000	ms	1000	300000	
Reset delay time		1000	ms	1000	60000	
CCSPVC1: 1						
MCS 3I(1)						
Operation		on				
Start value		0,05	xIn	0,05	0,50	
Max operate current		1,50	xIn	1,00	5,00	
SEQSPVC1: 1						
FUSEF(1)						
Operation		off				
Neg Seq current Lev		0,03	xIn	0,03	0,20	
Neg Seq voltage Lev		0,10	xUn	0,03	0,20	
Change rate enable		False				
Min Op voltage delta		0,50	xUn	0,01	1,00	
Min Op current delta		0,10	xIn	0,01	1,00	
Enable seal in		False				
Current dead Lin Val		0,05	xIn	0,05	1,00	
Disturbance recorder						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A1RADR: 1						
A1RADR						
Analog channel 1						
Operation		on				
Channel id text		Analog ch 1 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 2						
Operation		on				
Channel id text		Analog ch 2 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 3						
Operation		on				
Channel id text		Analog ch 3 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 4						
Operation		on				
Channel id text		Analog ch 4 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 5						
Operation		on				
Channel id text		Analog ch 5 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 6						
Operation		on				
Channel id text		Analog ch 6 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 7						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 7 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 8						
Operation		on				
Channel id text		Analog ch 8 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 9						
Operation		on				
Channel id text		Analog ch 9 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 10						
Operation		on				
Channel id text		Analog ch 10 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 11						
Operation		on				
Channel id text		Analog ch 11 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 12						
Operation		on				
Channel id text		Analog ch 12 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
A2RADR: 13						
A2RADR						
Analog channel 13						
Operation		on				
Channel id text		Analog ch 13 input			64 characters	
High trigger level		10,00		0,00	60,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 14						
Operation		on				
Channel id text		Analog ch 14 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 15						
Operation		on				
Channel id text		Analog ch 15 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 16						
Operation		on				
Channel id text		Analog ch 16 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 17						
Operation		on				
Channel id text		Analog ch 17 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 18						
Operation		on				
Channel id text		Analog ch 18 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 19						
Operation		on				
Channel id text		Analog ch 19 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 20						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 20 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 21						
Operation		on				
Channel id text		Analog ch 21 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 22						
Operation		on				
Channel id text		Analog ch 22 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 23						
Operation		on				
Channel id text		Analog ch 23 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 24						
Operation		on				
Channel id text		Analog ch 24 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
B1RBDR: 1						
B1RBDR						
Binary channel 1						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 1 input			64 characters	
Binary channel 2						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 2 input			64 characters	
Binary channel 3						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 3 input			64 characters	
Binary channel 4						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 4 input			64 characters	
Binary channel 5						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 5 input			64 characters	
Binary channel 6						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 6 input			64 characters	
Binary channel 7						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 7 input			64 characters	
Binary channel 8						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 8 input			64 characters	
Binary channel 9						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 9 input			64 characters	
Binary channel 10						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 10 input			64 characters	
Binary channel 11						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 11 input			64 characters	
Binary channel 12						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 12 input			64 characters	
Binary channel 13						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 13 input			64 characters	
Binary channel 14						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 14 input			64 characters	
Binary channel 15						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 15 input			64 characters	
Binary channel 16						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 16 input			64 characters	
Binary channel 17						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 17 input			64 characters	
Binary channel 18						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 18 input			64 characters	
Binary channel 19						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 19 input			64 characters	
Binary channel 20						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 20 input			64 characters	
Binary channel 21						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 21 input			64 characters	
Binary channel 22						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 22 input			64 characters	
Binary channel 23						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 23 input			64 characters	
Binary channel 24						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 24 input			64 characters	
Binary channel 25						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 25 input			64 characters	
Binary channel 26						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 26 input			64 characters	
Binary channel 27						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 27 input			64 characters	
Binary channel 28						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 28 input			64 characters	
Binary channel 29						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 29 input			64 characters	
Binary channel 30						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 30 input			64 characters	
Binary channel 31						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 31 input			64 characters	
Binary channel 32						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 32 input			64 characters	
B2RBDR: 33						
B2RBDR						
Binary channel 33						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 33 input			64 characters	
Binary channel 34						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 34 input			64 characters	
Binary channel 35						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 35 input			64 characters	
Binary channel 36						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 36 input			64 characters	
Binary channel 37						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 37 input			64 characters	
Binary channel 38						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 38 input			64 characters	
Binary channel 39						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 39 input			64 characters	
Binary channel 40						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 40 input			64 characters	
Binary channel 41						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 41 input			64 characters	
Binary channel 42						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 42 input			64 characters	
Binary channel 43						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 43 input			64 characters	
Binary channel 44						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 44 input			64 characters	
Binary channel 45						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 45 input			64 characters	
Binary channel 46						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 46 input			64 characters	
Binary channel 47						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 47 input			64 characters	
Binary channel 48						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 48 input			64 characters	
Binary channel 49						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 49 input			64 characters	
Binary channel 50						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 50 input			64 characters	
Binary channel 51						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 51 input			64 characters	
Binary channel 52						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 52 input			64 characters	
Binary channel 53						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 53 input			64 characters	
Binary channel 54						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 54 input			64 characters	
Binary channel 55						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 55 input			64 characters	
Binary channel 56						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 56 input			64 characters	
Binary channel 57						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 57 input			64 characters	
Binary channel 58						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 58 input			64 characters	
Binary channel 59						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 59 input			64 characters	
Binary channel 60						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 60 input			64 characters	
Binary channel 61						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 61 input			64 characters	
Binary channel 62						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 62 input			64 characters	
Binary channel 63						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 63 input			64 characters	
Binary channel 64						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 64 input			64 characters	
Fault record						
FLTRFRC1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
FLTRFRC1						
Operation		on				
Trig mode		From operate				
A measurement mode		DFT				
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Operation		on				
Mem. warning level		0	%	0	100	
Mem. alarm level		0	%	0	100	
Generic timers						
TONGAPC1: 1						
TON(1)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TONGAPC2: 2						
TON(2)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TOFGAPC1: 1						
TOF(1)						
Off delay time 1		500	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
TOFGAPC2: 2						
TOF(2)						
Off delay time 1		0	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
PTGAPC1: 1						
PT(1)						
Pulse time 1		150	ms	0	3600000	
Pulse time 2		150	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
PTGAPC2: 2						
PT(2)						
Pulse time 1		0	ms	0	3600000	
Pulse time 2		0	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
Generic logic						
SPCGAPC1: 1						
SPC(1)						
General						
Loc Rem restriction		False				
Output 1						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM CLOSE CMD (DIRECT)			64 characters	
Output 2						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM OPEN CMD (DIRECT)			64 characters	
Output 3						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		RESET ALARMS			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 4						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 4			64 characters	
Output 5						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 5			64 characters	
Output 6						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 6			64 characters	
Output 7						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 7			64 characters	
Output 8						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 8			64 characters	
Output 9						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 9			64 characters	
Output 10						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 10			64 characters	
Output 11						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 11			64 characters	
Output 12						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 12			64 characters	
Output 13						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		SPCGAPC1 Output 13			64 characters	
Output 14						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 14			64 characters	
Output 15						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		EMERGENCY			64 characters	
Output 16						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 16			64 characters	
SRGAPC1: 1						
SR(1)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC2: 2						
SR(2)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC3: 3						
SR(3)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MVGAPC1: 1						
MV(1)						
Output 1						
Description		MVGAPC1 Q1			20 characters	
Output 2						
Description		MVGAPC1 Q2			20 characters	
Output 3						
Description		MVGAPC1 Q3			20 characters	
Output 4						
Description		MVGAPC1 Q4			20 characters	
Output 5						
Description		MVGAPC1 Q5			20 characters	
Output 6						
Description		MVGAPC1 Q6			20 characters	
Output 7						
Description		MVGAPC1 Q7			20 characters	
Output 8						
Description		MVGAPC1 Q8			20 characters	
MVGAPC2: 2						
MV(2)						
Output 1						
Description		MVGAPC2 Q1			20 characters	
Output 2						
Description		MVGAPC2 Q2			20 characters	
Output 3						
Description		MVGAPC2 Q3			20 characters	
Output 4						
Description		MVGAPC2 Q4			20 characters	
Output 5						
Description		MVGAPC2 Q5			20 characters	
Output 6						
Description		MVGAPC2 Q6			20 characters	
Output 7						
Description		MVGAPC2 Q7			20 characters	
Output 8						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC2 Q8			20 characters	
MVGAPC3: 3						
MV(3)						
Output 1						
Description		MVGAPC3 Q1			20 characters	
Output 2						
Description		MVGAPC3 Q2			20 characters	
Output 3						
Description		MVGAPC3 Q3			20 characters	
Output 4						
Description		MVGAPC3 Q4			20 characters	
Output 5						
Description		MVGAPC3 Q5			20 characters	
Output 6						
Description		MVGAPC3 Q6			20 characters	
Output 7						
Description		MVGAPC3 Q7			20 characters	
Output 8						
Description		MVGAPC3 Q8			20 characters	
MVGAPC4: 4						
MV(4)						
Output 1						
Description		MVGAPC4 Q1			20 characters	
Output 2						
Description		MVGAPC4 Q2			20 characters	
Output 3						
Description		MVGAPC4 Q3			20 characters	
Output 4						
Description		MVGAPC4 Q4			20 characters	
Output 5						
Description		MVGAPC4 Q5			20 characters	
Output 6						
Description		MVGAPC4 Q6			20 characters	
Output 7						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC4 Q7			20 characters	
Output 8						
Description		MVGAPC4 Q8			20 characters	
General: 0						
General						
Software reset		Cancel				
HMI: 0						
HMI						
FB naming convention		IEC61850				
Backlight timeout		3	min	1	60	
Web HMI mode		On				
HMI timeout		15	min	1	60	
SLD symbol format		IEC				
Setting visibility		Advanced				
User defined name		Disabled				
Time: 0						
Time						
System time						
Time format		24H:MM:SS:MS				
Date format		DD.MM.YYYY				
Date		0			20 characters	
Time		0			20 characters	
Local time offset		0	min	-840	840	
Daylight saving time						
DST in use		True				
DST on time (hours)		2	h	0	23	
DST on time (minutes)		0	min	0	59	
DST on date (day)		1		1	31	
DST on date (month)		May				
DST on day (weekday)		reserved				
DST off time (hours)		2	h	0	23	
DST off time (minutes)		0	min	0	59	
DST off date (day)		25		1	31	
DST off date (month)		September				
DST off day (weekday)		reserved				
DST offset		60	min	-720	720	
SNTP						
IP SNTP primary		192.168.2.166				
IP SNTP secondary		192.168.2.165				
Synchronization						
Synch source		SNTP				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PTP Profile		IEEE C37.238-2011				
PTP domain ID		0		0	255	
PTP priority 1		128		0	255	
PTP priority 2		128		0	255	
PTP Slave-only		False				
Time master mode		Master with finite holdover				
Clear clock list		False				
Time Syn Src Tmm		3	min	1	65535	
Setting group: 0						
Setting group						
SG operation mode		Operator				
Control: 0						
Control						
LHMI						
Close delay mode		Not in use				
Close delay		60	s	5	900	
Breaker operation		After confirmation				
Programmable LEDs: 1						
Programmable LEDs						
General						
Alarm colour		Red				
LED 1						
Alarm mode		Follow-S				
Description		27/59 Voltage Protection			64 characters	
LED 2						
Alarm mode		Follow-S				
Description		Contactor Ready			64 characters	
LED 3						
Alarm mode		Follow-S				
Description		Synchrocheck			64 characters	
LED 4						
Alarm mode		Follow-S				
Description		Contactor Ready to close			64 characters	
LED 5						
Alarm mode		Follow-S				
Description		50/51 Current Protection			64 characters	
LED 6						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Alarm mode		Follow-S				
Description		51N/59N Earth Fault Protection			64 characters	
LED 7						
Alarm mode		Follow-S				
Description		Earthing Switch Unlocked			64 characters	
LED 8						
Alarm mode		Follow-S				
Description		Contactor Truck Unlocked			64 characters	
LED 9						
Alarm mode		Follow-S				
Description		Arc Protection Trip			64 characters	
LED 10						
Alarm mode		Follow-S				
Description		GOOSE Alarm			64 characters	
LED 11						
Alarm mode		Follow-S				
Description		Emergency Open by SIS			64 characters	
Programmable LEDs: 2						
Programmable LEDs						
LED 12						
Alarm mode		Follow-S				
Description		Space Heater ON			64 characters	
LED 13						
Alarm mode		Follow-S				
Description		Transformer Protections			64 characters	
LED 14						
Alarm mode		Follow-S				
Description		Contactor Fuses Trip			64 characters	
LED 15						
Alarm mode		Follow-S				
Description		Trip from LV			64 characters	
LED 16						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 17						
Alarm mode		Follow-S				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		-			64 characters	
LED 18						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 19						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 20						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 21						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 22						
Alarm mode		Follow-S				
Description		-			64 characters	
I/O modules: 0						
I/O modules						
Common settings						
Slot specific threshold		False				
Slot specific hysteresis		False				
Input threshold voltage		16	Vdc	16	176	
Input threshold hysteresis		10	%	10	50	
Input osc. level		30	events/s	2	50	
Input osc. hyst		10	events/s	2	50	
User Activity log: 0						
User Activity log						
Server Settings 1						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address		192.168.2.5				
Server Settings 2						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address2		192.168.2.6				
Authorization: 1						
Authorization						
Security						
Remote Update		Disable				
Passwords						
Remote override		True				
Local override		True				
CAM						
Clear AD userlist		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Network1						
FTP write access		On				
MMS write access		On				
HTTPS write access		On				
HMI						
FTP write access		On				
MMS write access		On				
Monitoring						
Communication						
Ethernet						
RCHLCCH1: 1						
RCHLCCH1						
Activity						
CHLIV_A		False				
REDCHLIV_B		False				
Link statuses						
LNKLIV_A		False				
REDLNKLIV_B		False				
Diagnostics						
A_B						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH1: 1						
SCHLCCH1						
Activity						
CH1LIV		False				
Link statuses						
LNK1LIV		False				
Diagnostics						
X1						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SCHLCCH2: 2						
SCHLCCH2						
Activity						
CH2LIV		False				
Link statuses						
LNK2LIV		False				
Diagnostics						
X2						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH3: 3						
SCHLCCH3						
Activity						
CH3LIV		False				
Link statuses						
LNK3LIV		False				
Diagnostics						
X3						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
HMILCCH1: 1						
HMILCCH1						
Activity						
HMICHLIV		False				
Link statuses						
HMILNKLIV		Down				
SCHLCCH6: 6						
SCHLCCH6						
Activity						
CH6LIV		False				
Link statuses						
LNK6LIV		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Diagnostics						
X6						
Temperature		0,0	°C	-128,0	128,0	
Voltage		0,000	V	0,000	6,550	
Bias current		0,0	mA	0,0	131,0	
TX power		0,000	mW	0,000	6,550	
RX power		0,000	mW	0,000	6,550	
XCVR detected		False				
RX power alarm		False				
TX power alarm		False				
Voltage alarm		False				
Temperature alarm		False				
Part name		0			20 characters	
Protocols						
MMSLPRT1: 1						
MMS(1)						
CHLIV		False				
Successful conn.		0		0	10000000	
Failed conn.		0		0	10000000	
Concludes		0		0	10000000	
Sent aborts		0		0	10000000	
Recv. aborts		0		0	10000000	
Sent rejects		0		0	10000000	
Recv. requests		0		0	10000000	
Failed requests		0		0	10000000	
Reads		0		0	10000000	
Failed reads		0		0	10000000	
Writes		0		0	10000000	
Failed writes		0		0	10000000	
Reports		0		0	10000000	
Active conn.		0		0	10000000	
Reset counters		False				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT2: 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MBSLPRT2						
Modbus (2)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Rec. memory used		0	%	0	100	
MEM_WARN		False				
MEM_ALARM		False				
I/O status						
Binary input values						
Slot B (BIO): 1						
Slot B (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot C (BIO): 1						
Slot C (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot D (BIO): 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Slot D (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
TCS Input 1		False				
TCS Input 2		False				
Binary output values						
Slot B (BIO): 1						
Slot B (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot C (BIO): 1						
Slot C (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot D (BIO): 1						
Slot D (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot G (PSM): 1						
Slot G (PSM)						
Output 1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Output 9		False				
Output 10		False				
Analog inputs						
Current (3I): 1						
Current (3I)						
ALARM		False				
WARNING		False				
Current (Io): 1						
Current (Io)						
ALARM		False				
WARNING		False				
Voltage (Uo): 1						
Voltage (Uo)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (UoB): 2						
Voltage (UoB)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (3U): 1						
Voltage (3U)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Voltage (3UB): 2						
Voltage (3UB)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Measurements						
CMMXU1: 1						
3I(1)						
Inputs						
BLOCK		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
I_INST_A		0,00	xIn	0,00	40,00	
I_ANGL_A		0,00	deg	-180,00	180,00	
I_DB_A		0,00	xIn	0,00	40,00	
I_DMD_A		0,00	xIn	0,00	40,00	
I_RANGE_A		normal				
I_INST_B		0,00	xIn	0,00	40,00	
I_ANGL_B		0,00	deg	-180,00	180,00	
I_DB_B		0,00	xIn	0,00	40,00	
I_DMD_B		0,00	xIn	0,00	40,00	
I_RANGE_B		normal				
I_INST_C		0,00	xIn	0,00	40,00	
I_ANGL_C		0,00	deg	-180,00	180,00	
I_DB_C		0,00	xIn	0,00	40,00	
I_DMD_C		0,00	xIn	0,00	40,00	
I_RANGE_C		normal				
RESCMMXU1: 1						
Io(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
I_INST_RES		0,00	xIn	0,00	40,00	
I_ANGL_RES		0,00	deg	-180,00	180,00	
I_DB_RES		0,00	xIn	0,00	40,00	
I_DMD_RES		0,00	xIn	0,00	40,00	
I_RANGE_RES		normal				
RESVMMXU1: 1						
Uo(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
U_INST_RES		0,00	xUn	0,00	4,00	
U_ANGL_RES		0,00	deg	-180,00	180,00	
U_DB_RES		0,00	xUn	0,00	4,00	
U_DMD_RES		0,00	xUn	0,00	4,00	
U_RANGE_RES		normal				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
VMMXU1: 1						
3U(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
CSMSQI1: 1						
I1,I2,I0(1)						
Outputs						
I2_HIGH_AL		False				
I2_HIGH_WARN		False				
I1_HIGH_AL		False				
I1_HIGH_WARN		False				
I1_LOW_WARN		False				
I1_LOW_AL		False				
I0_HIGH_AL		False				
I0_HIGH_WARN		False				
Monitored data						
I2_INST		0,00	xIn	0,00	40,00	
I2_ANGL		0,00	deg	-180,00	180,00	
I2_DB		0,00	xIn	0,00	40,00	
I2_RANGE		normal				
I1_INST		0,00	xIn	0,00	40,00	
I1_ANGL		0,00	deg	-180,00	180,00	
I1_DB		0,00	xIn	0,00	40,00	
I1_RANGE		normal				
I0_INST		0,00	xIn	0,00	40,00	
I0_ANGL		0,00	deg	-180,00	180,00	
I0_DB		0,00	xIn	0,00	40,00	
I0_RANGE		normal				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
VSMSQI1: 1						
U1,U2,U0(1)						
Outputs						
U2_HIGH_AL		False				
U2_HIGH_WARN		False				
U1_HIGH_AL		False				
U1_HIGH_WARN		False				
U1_LOW_WARN		False				
U1_LOW_AL		False				
U0_HIGH_AL		False				
U0_HIGH_WARN		False				
Monitored data						
U2_INST		0,00	xUn	0,00	4,00	
U2_ANGL		0,00	deg	-180,00	180,00	
U2_DB		0,00	xUn	0,00	4,00	
U2_RANGE		normal				
U1_INST		0,00	xUn	0,00	4,00	
U1_ANGL		0,00	deg	-180,00	180,00	
U1_DB		0,00	xUn	0,00	4,00	
U1_RANGE		normal				
U0_INST		0,00	xUn	0,00	4,00	
U0_ANGL		0,00	deg	-180,00	180,00	
U0_DB		0,00	xUn	0,00	4,00	
U0_RANGE		normal				
PEMMXU1: 1						
P,E(1)						
Inputs						
RSTACM		False				
Monitored data						
S_INST		0,0	kVA	-999999,9	999999,9	
S_DB		0,0	kVA	-999999,9	999999,9	
S_DMD		0,0	kVA	-999999,9	999999,9	
P_INST		0,0	kW	-999999,9	999999,9	
P_DB		0,0	kW	-999999,9	999999,9	
P_DMD		0,0	kW	-999999,9	999999,9	
Q_INST		0,0	kVAr	-999999,9	999999,9	
Q_DB		0,0	kVAr	-999999,9	999999,9	
Q_DMD		0,0	kVAr	-999999,9	999999,9	
PF_INST		0,00		-1,00	1,00	
PF_DB		0,00		-1,00	1,00	
PF_DMD		0,00		-1,00	1,00	
EA_RV_ACM		0	kWh	0	999999999	
ER_RV_ACM		0	kVArh	0	999999999	
EA_FWD_ACM		0	kWh	0	999999999	
ER_FWD_ACM		0	kVArh	0	999999999	
FMMXU1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
f(1)						
Monitored data						
F_INST		50,00	Hz	35,00	75,00	
F_DB		50,00	Hz	35,00	75,00	
F_RANGE		normal				
Generic logic						
SPCGAPC1: 1						
SPC(1)						
Inputs						
BLOCK		False				
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
IN9		False				
IN10		False				
IN11		False				
IN12		False				
IN13		False				
IN14		False				
IN15		False				
IN16		False				
Outputs						
O1		False				
O2		False				
O3		False				
O4		False				
O5		False				
O6		False				
O7		False				
O8		False				
O9		False				
O10		False				
O11		False				
O12		False				
O13		False				
O14		False				
O15		False				
O16		False				
SRGAPC1: 1						
SR(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC2: 2						
SR(2)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC3: 3						
SR(3)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC1: 1						
MV(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC2: 2						
MV(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC3: 3						
MV(3)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q6		False				
Q7		False				
Q8		False				
MVGAPC4: 4						
MV(4)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Inputs						
ENA_OPEN		True				
ENA_CLOSE		True				
BLK_OPEN		False				
BLK_CLOSE		False				
SYNC_OK		True				
SYNC_BYPASS		False				
ITL_BYPASS		False				
Outputs						
SELECTED		False				
EXE_OP		False				
EXE_CL		False				
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
OPEN_ENAD		False				
CLOSE_ENAD		False				
CTL_ITL_BLKD		False				
Monitored data						
POSITION		intermediate				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
DCSXSWI1: 1						
I<->O DC(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
ESSXSWI1: 1						
I<->O ES(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
25; SECRSYN1: 1						
SYNC(1)						
Inputs						
BLOCK		False				
CL_COMMAND		False				
BYPASS		False				
Outputs						
SYNC_INPRO		False				
SYNC_OK		False				
CL_FAIL_AL		False				
CMD_FAIL_AL		False				
LLDB		False				
LLLB		False				
DLLB		False				
DLDB		False				
Monitored data						
ENERG_STATE		Unknown				
U_DIFF_MEAS		0,00	xUn	-3,00	3,00	
FR_DIFF_MEAS		0,000	xFn	-1,500	1,500	
PH_DIFF_MEAS		0,00	deg	-180,00	180,00	
U_DIFF_SYNC		False				
PH_DIF_SYNC		False				
FR_DIFF_SYNC		False				
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
51-1; PHLPTOC1: 1						
3I>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
67-1; DPHLPDOC1: 1						
3I>->(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
NON_DIR		False				
Outputs						
OPERATE		False				
START		False				
FAULT_DIR		unknown				
DIRECTION		unknown				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
DIR_A		unknown				
DIR_B		unknown				
DIR_C		unknown				
ANGLE_A		0,00	deg	-180,00	180,00	
ANGLE_B		0,00	deg	-180,00	180,00	
ANGLE_C		0,00	deg	-180,00	180,00	
VMEM_USED		False				
67-2; DPHLPDOC2: 2						
3I>->(2)						
Inputs						
BLOCK		False				
ENA_MULT		False				
NON_DIR		False				
Outputs						
OPERATE		False				
START		False				
FAULT_DIR		unknown				
DIRECTION		unknown				
Monitored data						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
START_DUR		0,00	%	0,00	100,00	
DIR_A		unknown				
DIR_B		unknown				
DIR_C		unknown				
ANGLE_A		0,00	deg	-180,00	180,00	
ANGLE_B		0,00	deg	-180,00	180,00	
ANGLE_C		0,00	deg	-180,00	180,00	
VMEM_USED		False				
68; INRPHAR1: 1						
3I2f>(1)						
Inputs						
BLOCK		False				
Outputs						
BLK2H		False				
51N; EFLPTOC1: 1						
Io>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Voltage protection						
59N-1; ROVPTOV1: 1						
Uo>(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59-1; PHPTOV1: 1						
3U>(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59-2; PHPTOV2: 2						
3U>(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-1; PHPTUV1: 1						
3U<(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-2; PHPTUV2: 2						
3U<(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Inputs						
BLOCK		False				
START		False				
POSCLOSE		False				
CB_FAULT		False				
Outputs						
CB_FAULT_AL		False				
TRBU		False				
TRRET		False				
ARC BUSBAR; ARCSARC1: 11						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ARC(1)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CB; ARCSARC2: 21						
ARC(2)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Inputs						
BLOCK		False				
OPERATE		False				
RST_LKOUT		False				
Outputs						
TRIP		False				
CL_LKOUT		False				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Inputs						
BLOCK		False				
POSOPEN		False				
POSCLOSE		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPEN_CB_EXE		False				
CLOSE_CB_EXE		False				
PRES_ALM_IN		False				
PRES_LO_IN		False				
RST_IPOW		False				
RST_CB_WEAR		False				
RST_TRV_T		False				
RST_SPR_T		False				
Outputs						
TRV_T_OP_ALM		False				
TRV_T_CL_ALM		False				
SPR_CHR_ALM		False				
OPR_ALM		False				
OPR_LO		False				
IPOW_ALM		False				
IPOW_LO		False				
CB_LIFE_ALM		False				
MON_ALM		False				
PRES_ALM		False				
PRES_LO		False				
OPENPOS		False				
INVALIDPOS		False				
CLOSEPOS		False				
Monitored data						
T_TRV_OP		0	ms	0	60000	
T_TRV_CL		0	ms	0	60000	
T_SPR_CHR		0,00	s	0,00	99,99	
NO_OPR		0		0	99999	
INA_DAYS		0		0	9999	
CB_LIFE_A		0		-99999	99999	
CB_LIFE_B		0		-99999	99999	
CB_LIFE_C		0		-99999	99999	
IPOW_A		0,000		0,000	30000,000	
IPOW_B		0,000		0,000	30000,000	
IPOW_C		0,000		0,000	30000,000	
Supervision						
TCSSCBR1: 1						
TCS(1)						
Inputs						
BLOCK		False				
Outputs						
ALARM		False				
CCSPVC1: 1						
MCS 3I(1)						
Inputs						
BLOCK		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
FAIL		False				
ALARM		False				
Monitored data						
IDIFF		0,00	xIn	0,00	40,00	
SEQSPVC1: 1						
FUSEF(1)						
Inputs						
BLOCK		False				
CB_CLOSED		False				
DISCON_OPEN		False				
MINCB_OPEN		False				
Outputs						
FUSEF_3PH		False				
FUSEF_U		False				
Communication						
GSELPRT1: 1						
GSE(1)						
Outputs						
ALARM		False				
Monitoring						
Reset counters		False				
Received msgs		0		0	10000000	
Transmitted msgs		0		0	10000000	
State changes		0		0	10000000	
SeqNum changes		0		0	10000000	
Test msgs		0		0	10000000	
State warnings		0		0	10000000	
Seq. warnings		0		0	10000000	
Recv. timeouts		0		0	10000000	
ConfRev errors		0		0	10000000	
NdsComm errors		0		0	10000000	
Dataset errors		0		0	10000000	
Replay Prot warnings		0		0	10000000	
Generic timers						
TONGAPC1: 1						
TON(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TONGAPC2: 2						
TON(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
T_LEFT8		0	s	0	3600	
TOFGAPC1: 1						
TOF(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TOFGAPC2: 2						
TOF(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC1: 1						
PT(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC2: 2						
PT(2)						
Inputs						
IN1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
FB status						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Current protection						
3I>>>(1)		on				
51-1; PHLPTOC1: 1						
3I>(1)						
Current protection						
3I>(1)		on				
67-1; DPHLPDOC1: 1						
3I>->(1)						
Current protection						
3I>->(1)		on				
67-2; DPHLPDOC2: 2						
3I>->(2)						
Current protection						
3I>->(2)		on				
68; INRPHAR1: 1						
3I2f>(1)						
Current protection						
3I2f>(1)		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
51N; EFLPTOC1: 1						
Io>(1)						
Current protection						
Io>(1)		on				
59-1; PHPTOV1: 1						
3U>(1)						
Voltage protection						
3U>(1)		on				
59-2; PHPTOV2: 2						
3U>(2)						
Voltage protection						
3U>(2)		on				
27-1; PHPTUV1: 1						
3U<(1)						
Voltage protection						
3U<(1)		on				
27-2; PHPTUV2: 2						
3U<(2)						
Voltage protection						
3U<(2)		on				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Voltage protection						
Uo>(1)		on				
59N-2; ROVPTOV2: 2						
Uo>(2)						
Voltage protection						
Uo>(2)		on				
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Other protection						
3I>/Io>BF(1)		on				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Other protection						
ARC(1)		on				
ARC CB; ARCSARC2: 21						
ARC(2)						
Other protection						
ARC(2)		on				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Other protection						
ARC(3)		on				
25; SECRSYN1: 1						
SYNC(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Control						
SYNC(1)		on				
TRPPTRC1: 1						
Master Trip(1)						
Trip logic						
Master Trip(1)		on				
SSCBR1: 1						
CBCM(1)						
Condition monitoring						
CBCM(1)		on				
TCSSCBR1: 1						
TCS(1)						
Supervision						
TCS(1)		on				
CCSPVC1: 1						
MCS 3I(1)						
Supervision						
MCS 3I(1)		on				
SEQSPVC1: 1						
FUSEF(1)						
Supervision						
FUSEF(1)		on				
Recorded data						
Measurements						
CMMXU1: 1						
3I(1)						
Max demand IL1		0,00	xIn	0,00	40,00	
Max demand IL2		0,00	xIn	0,00	40,00	
Max demand IL3		0,00	xIn	0,00	40,00	
Min demand IL1		0,00	xIn	0,00	40,00	
Min demand IL2		0,00	xIn	0,00	40,00	
Min demand IL3		0,00	xIn	0,00	40,00	
Time max demand IL1		0			34 characters	
Time max demand IL2		0			34 characters	
Time max demand IL3		0			34 characters	
Time min demand IL1		0			34 characters	
Time min demand IL2		0			34 characters	
Time min demand IL3		0			34 characters	
RESCMMXU1: 1						
Io(1)						
Max demand Io		0,00	xIn	0,00	40,00	
Min demand Io		0,00	xIn	0,00	40,00	
Time max demand Io		0			34 characters	
Time min demand Io		0			34 characters	
PEMMXU1: 1						
P,E(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Max demand S		0,0	kVA	-999999,9	999999,9	
Min demand S		0,0	kVA	-999999,9	999999,9	
Max demand P		0,0	kW	-999999,9	999999,9	
Min demand P		0,0	kW	-999999,9	999999,9	
Max demand Q		0,0	kVAr	-999999,9	999999,9	
Min demand Q		0,0	kVAr	-999999,9	999999,9	
Time max dmd S		0			34 characters	
Time min dmd S		0			34 characters	
Time max dmd P		0			34 characters	
Time min dmd P		0			34 characters	
Time max dmd Q		0			34 characters	
Time min dmd Q		0			34 characters	
FLTRFRC1: 1						
FLTRFRC1						
Fault record						
Fault number		0		0	999999	
Time and date		0			34 characters	
Protection (rec. set 1)		None				
Protection (rec. set 2)		None				
Start duration		0,00	%	0,00	100,00	
Operate time		0,000	s	0,000	999999,999	
Breaker clear time		0,000	s	0,000	3,000	
Fault distance		0,00	pu	0,00	3000,00	
Fault resistance		0,00	ohm	0,00	3000,00	
Fault reactance		0,00	ohm	0,00	3000,00	
Active group		1		1	6	
Shot pointer		1		1	7	
Max diff current IL1:1		0,000	pu	0,000	80,000	
Max diff current IL2:1		0,000	pu	0,000	80,000	
Max diff current IL3:1		0,000	pu	0,000	80,000	
Diff current IL1:1		0,000	pu	0,000	80,000	
Diff current IL2:1		0,000	pu	0,000	80,000	
Diff current IL3:1		0,000	pu	0,000	80,000	
Max bias current IL1:1		0,000	pu	0,000	50,000	
Max bias current IL2:1		0,000	pu	0,000	50,000	
Max bias current IL3:1		0,000	pu	0,000	50,000	
Bias current IL1:1		0,000	pu	0,000	50,000	
Bias current IL2:1		0,000	pu	0,000	50,000	
Bias current IL3:1		0,000	pu	0,000	50,000	
Diff current Io:1		0,000	pu	0,000	80,000	
Bias current Io:1		0,000	pu	0,000	50,000	
Max current IL1:1		0,000	xIn	0,000	50,000	
Max current IL2:1		0,000	xIn	0,000	50,000	
Max current IL3:1		0,000	xIn	0,000	50,000	
Max current Io:1		0,000	xIn	0,000	50,000	
Current IL1:1		0,000	xIn	0,000	50,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Current IL2:1		0,000	xIn	0,000	50,000	
Current IL3:1		0,000	xIn	0,000	50,000	
Current Io:1		0,000	xIn	0,000	50,000	
Current Io-Calc:1		0,000	xIn	0,000	50,000	
Current Ps-Seq:1		0,000	xIn	0,000	50,000	
Current Ng-Seq:1		0,000	xIn	0,000	50,000	
Max current IL1:2		0,000	xIn	0,000	50,000	
Max current IL2:2		0,000	xIn	0,000	50,000	
Max current IL3:2		0,000	xIn	0,000	50,000	
Max current Io:2		0,000	xIn	0,000	50,000	
Current IL1:2		0,000	xIn	0,000	50,000	
Current IL2:2		0,000	xIn	0,000	50,000	
Current IL3:2		0,000	xIn	0,000	50,000	
Current Io:2		0,000	xIn	0,000	50,000	
Current Io-Calc:2		0,000	xIn	0,000	50,000	
Current Ps-Seq:2		0,000	xIn	0,000	50,000	
Current Ng-Seq:2		0,000	xIn	0,000	50,000	
Max current IL1:3		0,000	xIn	0,000	50,000	
Max current IL2:3		0,000	xIn	0,000	50,000	
Max current IL3:3		0,000	xIn	0,000	50,000	
Max current Io:3		0,000	xIn	0,000	50,000	
Current IL1:3		0,000	xIn	0,000	50,000	
Current IL2:3		0,000	xIn	0,000	50,000	
Current IL3:3		0,000	xIn	0,000	50,000	
Current Io:3		0,000	xIn	0,000	50,000	
Current Io-Calc:3		0,000	xIn	0,000	50,000	
Current Ps-Seq:3		0,000	xIn	0,000	50,000	
Current Ng-Seq:3		0,000	xIn	0,000	50,000	
Voltage UL1:1		0,000	xUn	0,000	4,000	
Voltage UL2:1		0,000	xUn	0,000	4,000	
Voltage UL3:1		0,000	xUn	0,000	4,000	
Voltage U12:1		0,000	xUn	0,000	4,000	
Voltage U23:1		0,000	xUn	0,000	4,000	
Voltage U31:1		0,000	xUn	0,000	4,000	
Voltage Uo:1		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:1		0,000	xUn	0,000	4,000	
Voltage UL1:2		0,000	xUn	0,000	4,000	
Voltage UL2:2		0,000	xUn	0,000	4,000	
Voltage UL3:2		0,000	xUn	0,000	4,000	
Voltage U12:2		0,000	xUn	0,000	4,000	
Voltage U23:2		0,000	xUn	0,000	4,000	
Voltage U31:2		0,000	xUn	0,000	4,000	
Voltage Uo:2		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:2		0,000	xUn	0,000	4,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage Ps-Seq:2		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:2		0,000	xUn	0,000	4,000	
Voltage UL1:3		0,000	xUn	0,000	4,000	
Voltage UL2:3		0,000	xUn	0,000	4,000	
Voltage UL3:3		0,000	xUn	0,000	4,000	
Voltage UL12:3		0,000	xUn	0,000	4,000	
Voltage UL23:3		0,000	xUn	0,000	4,000	
Voltage UL31:3		0,000	xUn	0,000	4,000	
Voltage Uo:3		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:3		0,000	xUn	0,000	4,000	
PTTR thermal level		0,00		0,00	99,99	
I2/I1>(1) rat. I2/I1		0,00	%	0,00	999,99	
Frequency:1		50,00	Hz	0,00	80,00	
Frequency gradient:1		0,00	Hz/s	-10,00	10,00	
Frequency:2		50,00	Hz	0,00	80,00	
Frequency gradient:2		0,00	Hz/s	-10,00	10,00	
Frequency:3		50,00	Hz	0,00	80,00	
Frequency gradient:3		0,00	Hz/s	-10,00	10,00	
Conductance Yo		0,00	mS	-1000,00	1000,00	
Susceptance Yo		0,00	mS	-1000,00	1000,00	
Angle Uo:1 - Io:1		0,00	deg	-180,00	180,00	
Angle U23:1- IL1:1		0,00	deg	-180,00	180,00	
Angle U31:1 - IL2:1		0,00	deg	-180,00	180,00	
Angle U12:1 - IL3:1		0,00	deg	-180,00	180,00	
Angle Uo:2 - Io:2		0,00	deg	-180,00	180,00	
Angle U23:2 - IL1:2		0,00	deg	-180,00	180,00	
Angle U31:2 - IL2:2		0,00	deg	-180,00	180,00	
Angle U12:2 - IL3:2		0,00	deg	-180,00	180,00	
Angle Uo:3 - Io:3		0,00	deg	-180,00	180,00	
Angle U23:3 - IL1:3		0,00	deg	-180,00	180,00	
Angle U31:3 - IL2:3		0,00	deg	-180,00	180,00	
Angle U12:3 - IL3:3		0,00	deg	-180,00	180,00	
Control command						
Control: 0						
Control						
LR state		Remote				
Detached LHMI						
EIHMI1: 1						
EIHMI1						
CONNECTION		False				
Service port IP address		0			20 characters	
Main unit port IP address		0			20 characters	
Setting group: 0						
Setting group						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
SG_LOGIC_SEL		False				
SG_1_ACT		False				
SG_2_ACT		False				
SG_3_ACT		False				
SG_4_ACT		False				
SG_5_ACT		False				
SG_6_ACT		False				
Programmable LEDs: 1						
Programmable LEDs						
Inputs						
LED 1						
OK		False				
ALARM		False				
RESET		False				
LED 2						
OK		False				
ALARM		False				
RESET		False				
LED 3						
OK		False				
ALARM		False				
RESET		False				
LED 4						
OK		False				
ALARM		False				
RESET		False				
LED 5						
OK		False				
ALARM		False				
RESET		False				
LED 6						
OK		False				
ALARM		False				
RESET		False				
LED 7						
OK		False				
ALARM		False				
RESET		False				
LED 8						
OK		False				
ALARM		False				
RESET		False				
LED 9						
OK		False				
ALARM		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
RESET		False				
LED 10						
OK		False				
ALARM		False				
RESET		False				
LED 11						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 1		None				
Programmable LED 2		None				
Programmable LED 3		None				
Programmable LED 4		None				
Programmable LED 5		None				
Programmable LED 6		None				
Programmable LED 7		None				
Programmable LED 8		None				
Programmable LED 9		None				
Programmable LED 10		None				
Programmable LED 11		None				
Programmable LEDs: 2						
Programmable LEDs						
Inputs						
LED 12						
OK		False				
ALARM		False				
RESET		False				
LED 13						
OK		False				
ALARM		False				
RESET		False				
LED 14						
OK		False				
ALARM		False				
RESET		False				
LED 15						
OK		False				
ALARM		False				
RESET		False				
LED 16						
OK		False				
ALARM		False				
RESET		False				
LED 17						
OK		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ALARM		False				
RESET		False				
LED 18						
OK		False				
ALARM		False				
RESET		False				
LED 19						
OK		False				
ALARM		False				
RESET		False				
LED 20						
OK		False				
ALARM		False				
RESET		False				
LED 21						
OK		False				
ALARM		False				
RESET		False				
LED 22						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 12		None				
Programmable LED 13		None				
Programmable LED 14		None				
Programmable LED 15		None				
Programmable LED 16		None				
Programmable LED 17		None				
Programmable LED 18		None				
Programmable LED 19		None				
Programmable LED 20		None				
Programmable LED 21		None				
Programmable LED 22		None				
IED status: 1						
IED status						
CAM						
UAM mode		Local				
CAM server1		Offline				
CAM server2		Offline				
Replication		N.A.				
Last update		0			34 characters	
PKI						
CA Server Status		Offline				
Time synchronization						
PTP P2P delay X1		0	ns	-2147483648	2147483647	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PTP P2P delay X2		0	ns	-2147483648	2147483647	
PTP P2P delay X3		0	ns	-2147483648	2147483647	
Self-supervision						
Warning		All ok				
Internal Fault		All ok				
Boot up time		0			34 characters	
Boot up reason		None				
Device state		on				
Composition changes						
No of comp. changes		0		0	100000	
Setting changes						
Setting changes		0		0	20000	
Setting time		0			34 characters	
SMV accuracy						
SMV Synch accuracy		InternalClock				
Local synch accuracy		0	us	0	1000000000	
Max Dev synch Acc		0	us	0	1000000000	
Information						
HW modules						
Slot B (BIO): 1						
Slot B (BIO)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot C (BIO): 1						
Slot C (BIO)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot D (BIO): 1						
Slot D (BIO)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot E (AIM): 1						
Slot E (AIM)						
Article number		0			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot F (AIM): 1						
Slot F (AIM)						
Article number		0			20 characters	
SW version		-			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot G (PSM): 1						
Slot G (PSM)						
Article number		0			20 characters	
SW version		-			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
EIHMI1: 1						
EIHMI1						
Detached LHMI						
Article number		0			20 characters	
Application version		0			20 characters	
Firmware version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Service port MAC address		0			20 characters	
Main unit port MAC address		0			20 characters	
Slot A1 (ARC): 1						
Slot A1 (ARC)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot A2 (COM): 1						
Slot A2 (COM)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Product identifiers: 0						
Product identifiers						
Type		REX640			20 characters	
Product version		0			64 characters	
Serial number		1XXXXXXXXXXX			20 characters	
Production date		0			34 characters	
SW version		X.X			20 characters	
SW date		0			34 characters	
SW number		2RCA057448A			20 characters	
Interface level		0			64 characters	
Order code		XXXXXXXXXXXXXXXXX			20 characters	
Site identifiers: 0						
Site identifiers						
Customer name		0			20 characters	
Street		0			20 characters	
House number		0			20 characters	
ZIP/Postal code		0			20 characters	
City/Province		0			20 characters	
State		0			20 characters	
Country		0			20 characters	
System identifiers: 0						
System identifiers						
Technical key		TIGER			20 characters	
IEC 61850 version		Edition 2			24 characters	
Engineering model		ABB				
HW modules: 0						
HW modules						
Main board						
Article number		2RAAXXXXXX			20 characters	
SW version		A			20 characters	
HW revision		X			20 characters	
Serial number		1XXXXXXXXXXX			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Clear						
Disturbance recorder: 0						
Disturbance recorder						
Disturbance records		Cancel				
Clear: 0						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Clear						
Indications and LEDs		Cancel				
Programmable LEDs		Cancel				
Events		Cancel				
Metering records		Cancel				
Power quality data		Cancel				
FLTRFRC1: 1						
FLTRFRC1						
Fault records		Cancel				
LDPRLRC1: 1						
LDPRLRC1						
Load Profile record		Cancel				
TRPPTRC1: 1						
Master Trip(1)						
Master Trip(1)		Cancel				
SSCBR1: 1						
CBCM(1)						
CBCM(1) acc.energy		Cancel				
CBCM(1) rem.life		Cancel				
CBCM(1) travel times		Cancel				
CBCM(1) spr.charge t		Cancel				
PEMMXU1: 1						
P,E(1)						
P,E(1) acc.energy		Cancel				
Application Configuration						
General						
Settings						
Setting group						
Protection: 0						
Setting group						
Active group		1		1	6	
Protection						
Settings						
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 2						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operate delay time		250	ms	20	300000	
settingGroup 3						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 4						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 5						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 6						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
51-1; PHLPTOC1: 1						
3I>(1)						
Operation		on				
Num of start phases		1 out of 3				
Minimum operate time		250	ms	20	60000	
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	50000,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	6,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 2						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 3						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 4						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 5						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 6						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
67-1; DPHLPDOC1: 1						
3I>->(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Allow Non Dir		False				
Min operate current		0,010	xIn	0,010	1,000	
Min operate voltage		0,010	xUn	0,010	1,000	
settingGroup 1						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		900	ms	40	300000	
Operating curve type		IEC Def. Time				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 2						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		900	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 3						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		900	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 4						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		900	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 5						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		900	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 6						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		900	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
67-2; DPHLPDOC2: 2						
3I>->(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Allow Non Dir		False				
Min operate current		0,010	xIn	0,010	1,000	
Min operate voltage		0,010	xUn	0,010	1,000	
settingGroup 1						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 2						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 3						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 4						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 5						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 6						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
68; INRPHAR1: 1						
3I2f>(1)						
Operation		off				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 2						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 3						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 4						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 5						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 6						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
51N; EFLPTOC1: 1						
Io>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage protection						
59-1; PHPTOV1: 1						
3U>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
59-2; PHPTOV2: 2						
3U>(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
27-1; PHPTUV1: 1						
3U<(1)						
Operation		on				
Num of start phases		1 out of 3				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage block value		0,20	xUn	0,05	1,00	
Enable block value		True				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
27-2; PHPTUV2: 2						
3U<(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage block value		0,20	xUn	0,05	1,00	
Enable block value		True				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,50	xUn	0,05	1,20	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 6						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 6						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Operation		off				
Current value		0,300	xIn	0,050	2,000	
Current value Res		0,30	xIn	0,05	2,00	
CB failure trip mode		1 out of 3				
CB failure mode		Current				
CB fail retrip mode		Off				
Retrip time		120	ms	0	60000	
CB failure delay		240	ms	0	60000	
CB fault delay		5000	ms	0	60000	
Measurement mode		Peak-to-Peak				
Trip pulse time		200	ms	0	60000	
Start latching mode		Rising edge				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CB; ARCSARC2: 21						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ARC(2)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Control						
25; SECRSYN1: 1						
SYNC(1)						
Operation		on				
Synchro check mode		Asynchronous				
Control mode		Continuous				
Dead line value		0,1	xUn	0,1	0,8	
Live line value		0,5	xUn	0,2	1,0	
Dead bus value		0,1	xUn	0,1	0,8	
Live bus value		0,5	xUn	0,2	1,0	
Max energizing V		1,11	xUn	0,50	1,15	
Phase shift		0	deg	-180	180	
Minimum Syn time		10000	ms	0	60000	
Energizing time		100	ms	100	60000	
Closing time of CB		50	ms	40	250	
Voltage source switch		False				
settingGroup 1						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 2						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 3						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 4						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
settingGroup 5						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 6						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	

Settings

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
REX640_A4						
IED Configuration						
HW Configuration						
Slot B (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot C (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot D (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input inversion						
Input 1 inversion		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
POSITION		intermediate				
SPCGAPC1: 1						
SPC(1)						
TRIG 1		False				
TRIG 2		False				
TRIG 3		False				
TRIG 4		False				
TRIG 5		False				
TRIG 6		False				
TRIG 7		False				
TRIG 8		False				
TRIG 9		False				
TRIG 10		False				
TRIG 11		False				
TRIG 12		False				
TRIG 13		False				
TRIG 14		False				
TRIG 15		False				
TRIG 16		False				
Measurements						
PEMMXU1: 1						
P,E(1)						
S-kVA:1		0,0	kVA	-999999,9	999999,9	
P-kW:1		0,0	kW	-999999,9	999999,9	
Q-kVAr:1		0,0	kVAr	-999999,9	999999,9	
PF:1		0,00		-1,00	1,00	
CMMXU1: 1						
3I(1)						
IL1-A:1		0,00	xIn	0,00	40,00	
IL2-A:1		0,00	xIn	0,00	40,00	
IL3-A:1		0,00	xIn	0,00	40,00	
RESCMMXU1: 1						
Io(1)						
Io-A:1		0,00	xIn	0,00	40,00	
RESCMMXU2: 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Io(2)						
Io-A:2		0,00	xIn	0,00	40,00	
RESVMMXU1: 1						
Uo(1)						
Uo-kV:1		0,00	xUn	0,00	4,00	
VMMXU1: 1						
3U(1)						
U12-kV:1		0,00	xUn	0,00	4,00	
U23-kV:1		0,00	xUn	0,00	4,00	
U31-kV:1		0,00	xUn	0,00	4,00	
UL1-kV:1		0,00	xUn	0,00	5,00	
UL2-kV:1		0,00	xUn	0,00	5,00	
UL3-kV:1		0,00	xUn	0,00	5,00	
FMMXU1: 1						
f(1)						
f-Hz:1		50,00	Hz	35,00	75,00	
CSMSQI1: 1						
I1,I2,I0(1)						
NgSeq-A:1		0,00	xIn	0,00	40,00	
PsSeq-A:1		0,00	xIn	0,00	40,00	
ZrSeq-A:1		0,00	xIn	0,00	40,00	
VSMSQI1: 1						
U1,U2,U0(1)						
NgSeq-kV:1		0,00	xUn	0,00	4,00	
PsSeq-kV:1		0,00	xUn	0,00	4,00	
ZrSeq-kV:1		0,00	xUn	0,00	4,00	
Disturbance records						
Disturbance recorder: 0						
Disturbance recorder						
Number of recordings		0		0	100	
Rem. amount of rec.		0		0	100	
Rec. memory used		0	%	0	100	
Trig recording		Cancel				
Time to trigger		0	s	0	604800	
Configuration						
Disturbance recorder: 0						
Disturbance recorder						
General						
Operation		on				
Record length		50	cycles	10	500	
Pre-trg length		50	%	0	100	
Operation mode		Overwrite				
Exclusion time		0	ms	0	1000000	
Storage rate		32 samples / cycle				
Periodic trig time		0	s	0	604800	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Stor. mode periodic		Waveform				
Stor. mode manual		Waveform				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Operation		on				
Select timeout		30000	ms	10000	300000	
Pulse length		200	ms	10	60000	
Operation counter		0		0	99999	
Control model		sbo-with-enhanced-security				
Adaptive pulse		True				
Event delay		200	ms	0	10000	
Operation timeout		500	ms	10	6000000	
Interlocking Pls Len		2	s	1	10	
Identification		CBXCBR1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
General: 0						
Control						
General						
LR control		Binary input				
Station authority		L,R				
Control mode		On				
DCSXSWI1: 1						
I<->O DC(1)						
Event delay		30000	ms	0	60000	
Identification		DCSXSWI1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
ESSXSWI1: 1						
I<->O ES(1)						
Event delay		30000	ms	0	60000	
Identification		ESSXSWI1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
System						
Control: 0						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Control						
Rated frequency		50Hz				
Phase rotation		ABC				
Blocking mode		Freeze timer				
Bay name		REX640_A4			20 characters	
IDMT Sat point		50	I/I>	10	50	
Frequency adaptivity		Disable				
SMV Max Delay		3/3 ms				
Test mode selection		Local				
HMI						
EIHMI1: 1						
EIHMI1						
Backlight brightness		100	%	1	100	
Enable USB access		No				
Enable HMI service port		Yes				
Communication						
Ethernet						
Rate Limiter: 1						
Rate Limiter						
Rate limiter						
Rate limit ctrl		False				
RCHLCCH1: 1						
RCHLCCH1						
Redundancy						
Redundant mode		None				
Filter						
Filter mode A_B		Off				
Rate limiter						
GOOSE rate limit A_B		10,000		0,512	90,000	
SMV rate limit A_B		70,000		0,512	90,000	
Def. rate limit A_B		8,000		0,512	90,000	
SCHLCCH1: 1						
SCHLCCH1						
Port modes						
Port mode X1		On				
Filter						
Filter mode X1		Off				
Rate limiter						
GOOSE rate limit X1		10,000		0,512	90,000	
SMV rate limit X1		70,000		0,512	90,000	
Def. rate limit X1		8,000		0,512	90,000	
SCHLCCH2: 2						
SCHLCCH2						
Port modes						
Port mode X2		On				
Filter						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Filter mode X2		Off				
Rate limiter						
GOOSE rate limit X2		10,000		0,512	90,000	
SMV rate limit X2		70,000		0,512	90,000	
Def. rate limit X2		8,000		0,512	90,000	
SCHLCCH3: 3						
SCHLCCH3						
Port modes						
Port mode X3		On				
Filter						
Filter mode X3		Off				
Rate limiter						
GOOSE rate limit X3		10,000		0,512	90,000	
SMV rate limit X3		70,000		0,512	90,000	
Def. rate limit X3		8,000		0,512	90,000	
Network1: 1						
Network1						
Network1 address						
IP address		192.168.10.8				
Subnet mask		255.255.255.224				
Default gateway		192.168.10.30				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
Network2: 2						
Network2						
Network2 address						
Enable		False				
IP address		192.168.3.10				
Subnet mask		255.255.255.0				
Default gateway		0.0.0.0			16 characters	
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
HMI: 1						
HMI						
HMI address						
IP address		192.168.0.254				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
Protocols						
GSELPRT1: 1						
GSE(1)						
GOOSE						
Change det. interval		500	ms	50	1000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MMSLPRT1: 1						
MMS(1)						
MMS						
Unit mode		Nominal				
Network1						
MMS		On				
HMI port						
MMS		On				
FTPLPRT1: 1						
FTPLPRT1						
Network1						
FTP		Secure				
HMI port						
FTP		Secure				
HTTPLPRT1: 1						
HTTPLPRT1						
Network1						
HTTPS		On				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Network1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Modbus		On				
MBSLPRT2: 2						
MBSLPRT2						
Modbus (2)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Analog inputs						
Current (3I): 1						
Current (3I)						
Current input type		Current trafo				
Primary current		200,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		False				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Current (Io): 1						
Current (Io)						
Current input type		Current trafo				
Primary current		100,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		False				
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Current (IoB): 2						
Current (IoB)						
Current input type		Current trafo				
Primary current		2500,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Reverse polarity		False				
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Voltage (3U): 1						
Voltage (3U)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (Uo): 1						
Voltage (Uo)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Measurements						
CMMXU1: 1						
3I(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
A high high limit		1,40	xIn	0,00	40,00	
A high limit		1,20	xIn	0,00	40,00	
A low limit		0,00	xIn	0,00	40,00	
A low low limit		0,00	xIn	0,00	40,00	
A deadband		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESCMMXU1: 1						
Io(1)						
Operation		on				
Measurement mode		DFT				
A Hi high limit res		0,20	xIn	0,00	40,00	
A high limit res		0,05	xIn	0,00	40,00	
A deadband res		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESCMMXU2: 2						
Io(2)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation		on				
Measurement mode		DFT				
A Hi high limit res		0,20	xIn	0,00	40,00	
A high limit res		0,05	xIn	0,00	40,00	
A deadband res		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESVMMXU1: 1						
Uo(1)						
Operation		on				
Measurement mode		DFT				
V Hi high limit res		0,20	xUn	0,00	4,00	
V high limit res		0,05	xUn	0,00	4,00	
V deadband res		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU1: 1						
3U(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		3 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,20	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
FMMXU1: 1						
f(1)						
Operation		on				
F high high limit		60,00	Hz	35,00	75,00	
F high limit		55,00	Hz	35,00	75,00	
F low limit		45,00	Hz	35,00	75,00	
F low low limit		40,00	Hz	35,00	75,00	
F deadband		1000		100	100000	
Def frequency Sel		Nominal				
PEMMXU1: 1						
P,E(1)						
Operation		on				
Power unit Mult		k				
Energy unit Mult		k				
Active power Dir		Forward				
Reactive power Dir		Forward				
Power deadband		10000		1000	10000	
Forward Wh Initial		0		0	999999999	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Reverse Wh Initial		0		0	999999999	
Forward VArh Initial		0		0	999999999	
Reverse VArh Initial		0		0	999999999	
Measurement mode		PhsA, PhsB, PhsC				
Pulse quantity		100000	Wh/VArh	1	10000000	
Pulse on time		1,000	s	0,050	60,000	
Pulse off time		0,500	s	0,050	60,000	
CSMSQI1: 1						
I1,I2,I0(1)						
Operation		on				
Ps Seq A Hi high Lim		1,40	xIn	0,00	40,00	
Ps Seq A high limit		1,20	xIn	0,00	40,00	
Ps Seq A low limit		0,00	xIn	0,00	40,00	
Ps Seq A low low Lim		0,00	xIn	0,00	40,00	
Ps Seq A deadband		2500		100	100000	
Ng Seq A Hi high Lim		0,20	xIn	0,00	40,00	
Ng Seq A High limit		0,05	xIn	0,00	40,00	
Ng Seq A low limit		0,00	xIn	0,00	40,00	
Ng Seq A low low Lim		0,00	xIn	0,00	40,00	
Ng Seq A deadband		2500		100	100000	
Zro A Hi high Lim		0,20	xIn	0,00	40,00	
Zro A High limit		0,05	xIn	0,00	40,00	
Zro A low limit		0,00	xIn	0,00	40,00	
Zro A low low Lim		0,00	xIn	0,00	40,00	
Zro A deadband		2500		100	100000	
Ps Seq A on delay time		0	ms	0	1800000	
Ps Seq A off delay time		0	ms	0	1800000	
Ng Seq A on delay time		0	ms	0	1800000	
Ng Seq A off delay time		0	ms	0	1800000	
Zro A on delay time		0	ms	0	1800000	
Zro A off delay time		0	ms	0	1800000	
VSMSQI1: 1						
U1,U2,U0(1)						
Operation		on				
Ps Seq V Hi high Lim		1,40	xUn	0,00	4,00	
Ps Seq V high limit		1,20	xUn	0,00	4,00	
Ps Seq V low limit		0,00	xUn	0,00	4,00	
Ps Seq V low low Lim		0,00	xUn	0,00	4,00	
Ps Seq V deadband		10000		100	100000	
Ng Seq V Hi high Lim		0,20	xUn	0,00	4,00	
Ng Seq V High limit		0,05	xUn	0,00	4,00	
Ng Seq V low limit		0,00	xUn	0,00	4,00	
Ng Seq V low low Lim		0,00	xUn	0,00	4,00	
Ng Seq V deadband		10000		100	100000	
Zro V Hi high Lim		0,20	xUn	0,00	4,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Zro V High limit		0,05	xUn	0,00	4,00	
Zro V low limit		0,00	xUn	0,00	4,00	
Zro V low low Lim		0,00	xUn	0,00	4,00	
Zro V deadband		10000		100	100000	
Ps Seq V on delay time		0	ms	0	1800000	
Ps Seq V off delay time		0	ms	0	1800000	
Ng Seq V on delay time		0	ms	0	1800000	
Ng Seq V off delay time		0	ms	0	1800000	
Zro V on delay time		0	ms	0	1800000	
Zro V off delay time		0	ms	0	1800000	
Demand metering: 0						
Demand metering						
Demand interval		1 minute				
A demand Av mode		Linear				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Operation		on				
Trip pulse time		250	ms	20	60000	
Trip output mode		Non-latched				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Operation		on				
Acc stop current		10,00	A	5,00	500,00	
Open alarm time		40	ms	0	200	
Close alarm time		40	ms	0	200	
Opening time Cor		10	ms	-100	100	
Closing time Cor		10	ms	-100	100	
Spring charge time		15	s	0	60	
Counter initial Val		0		0	99999	
Alarm Op number		200		0	99999	
Lockout Op number		300		0	99999	
Current exponent		2,00		0,00	5,00	
Difference Cor time		5	ms	-10	10	
Alm Acc currents Pwr		2500,00		0,00	20000,00	
LO Acc currents Pwr		2500,00		0,00	20000,00	
Ini Acc currents Pwr		0,00		0,00	20000,00	
Initial CB Rmn life		5000		0	99999	
Rated Op current		1000,00	A	100,00	6300,00	
Rated fault current		5000,00	A	500,00	99999,00	
Op number rated		10000		1	99999	
Op number fault		1000		1	10000	
Life alarm level		500		0	99999	
Pressure alarm time		10	ms	0	60000	
Pres lockout time		10	ms	0	60000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Inactive Alm days		2000		0	9999	
Ini inactive days		0		0	9999	
Inactive Alm hours		0	h	0	23	
Travel time Clc mode		From Pos to Pos				
Supervision						
TCSSCBR1: 1						
TCS(1)						
Operation		off				
Operate delay time		3000	ms	1000	300000	
Reset delay time		1000	ms	1000	60000	
CCSPVC1: 1						
MCS 3I(1)						
Operation		on				
Start value		0,05	xIn	0,05	0,50	
Max operate current		1,50	xIn	1,00	5,00	
SEQSPVC1: 1						
FUSEF(1)						
Operation		off				
Neg Seq current Lev		0,03	xIn	0,03	0,20	
Neg Seq voltage Lev		0,10	xUn	0,03	0,20	
Change rate enable		False				
Min Op voltage delta		0,50	xUn	0,01	1,00	
Min Op current delta		0,10	xIn	0,01	1,00	
Enable seal in		False				
Current dead Lin Val		0,05	xIn	0,05	1,00	
Disturbance recorder						
A1RADR: 1						
A1RADR						
Analog channel 1						
Operation		on				
Channel id text		Analog ch 1 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 2						
Operation		on				
Channel id text		Analog ch 2 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 3						
Operation		on				
Channel id text		Analog ch 3 input			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 4						
Operation		on				
Channel id text		Analog ch 4 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 5						
Operation		on				
Channel id text		Analog ch 5 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 6						
Operation		on				
Channel id text		Analog ch 6 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 7						
Operation		on				
Channel id text		Analog ch 7 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 8						
Operation		on				
Channel id text		Analog ch 8 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 9						
Operation		on				
Channel id text		Analog ch 9 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 10						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 10 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 11						
Operation		on				
Channel id text		Analog ch 11 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 12						
Operation		on				
Channel id text		Analog ch 12 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
A2RADR: 13						
A2RADR						
Analog channel 13						
Operation		on				
Channel id text		Analog ch 13 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 14						
Operation		on				
Channel id text		Analog ch 14 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 15						
Operation		on				
Channel id text		Analog ch 15 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 16						
Operation		on				
Channel id text		Analog ch 16 input			64 characters	
High trigger level		10,00		0,00	60,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 17						
Operation		on				
Channel id text		Analog ch 17 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 18						
Operation		on				
Channel id text		Analog ch 18 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 19						
Operation		on				
Channel id text		Analog ch 19 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 20						
Operation		on				
Channel id text		Analog ch 20 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 21						
Operation		on				
Channel id text		Analog ch 21 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 22						
Operation		on				
Channel id text		Analog ch 22 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 23						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 23 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 24						
Operation		on				
Channel id text		Analog ch 24 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
B1RBDR: 1						
B1RBDR						
Binary channel 1						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 1 input			64 characters	
Binary channel 2						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 2 input			64 characters	
Binary channel 3						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 3 input			64 characters	
Binary channel 4						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 4 input			64 characters	
Binary channel 5						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 5 input			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Binary channel 6						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 6 input			64 characters	
Binary channel 7						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 7 input			64 characters	
Binary channel 8						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 8 input			64 characters	
Binary channel 9						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 9 input			64 characters	
Binary channel 10						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 10 input			64 characters	
Binary channel 11						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 11 input			64 characters	
Binary channel 12						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 12 input			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Binary channel 13						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 13 input			64 characters	
Binary channel 14						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 14 input			64 characters	
Binary channel 15						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 15 input			64 characters	
Binary channel 16						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 16 input			64 characters	
Binary channel 17						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 17 input			64 characters	
Binary channel 18						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 18 input			64 characters	
Binary channel 19						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 19 input			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Binary channel 20						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 20 input			64 characters	
Binary channel 21						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 21 input			64 characters	
Binary channel 22						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 22 input			64 characters	
Binary channel 23						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 23 input			64 characters	
Binary channel 24						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 24 input			64 characters	
Binary channel 25						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 25 input			64 characters	
Binary channel 26						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 26 input			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Binary channel 27						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 27 input			64 characters	
Binary channel 28						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 28 input			64 characters	
Binary channel 29						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 29 input			64 characters	
Binary channel 30						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 30 input			64 characters	
Binary channel 31						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 31 input			64 characters	
Binary channel 32						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 32 input			64 characters	
B2RBDR: 33						
B2RBDR						
Binary channel 33						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 33 input			64 characters	
Binary channel 34						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 34 input			64 characters	
Binary channel 35						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 35 input			64 characters	
Binary channel 36						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 36 input			64 characters	
Binary channel 37						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 37 input			64 characters	
Binary channel 38						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 38 input			64 characters	
Binary channel 39						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 39 input			64 characters	
Binary channel 40						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 40 input			64 characters	
Binary channel 41						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 41 input			64 characters	
Binary channel 42						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 42 input			64 characters	
Binary channel 43						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 43 input			64 characters	
Binary channel 44						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 44 input			64 characters	
Binary channel 45						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 45 input			64 characters	
Binary channel 46						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 46 input			64 characters	
Binary channel 47						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 47 input			64 characters	
Binary channel 48						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 48 input			64 characters	
Binary channel 49						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 49 input			64 characters	
Binary channel 50						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 50 input			64 characters	
Binary channel 51						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 51 input			64 characters	
Binary channel 52						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 52 input			64 characters	
Binary channel 53						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 53 input			64 characters	
Binary channel 54						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 54 input			64 characters	
Binary channel 55						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 55 input			64 characters	
Binary channel 56						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 56 input			64 characters	
Binary channel 57						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 57 input			64 characters	
Binary channel 58						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 58 input			64 characters	
Binary channel 59						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 59 input			64 characters	
Binary channel 60						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 60 input			64 characters	
Binary channel 61						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 61 input			64 characters	
Binary channel 62						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 62 input			64 characters	
Binary channel 63						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 63 input			64 characters	
Binary channel 64						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 64 input			64 characters	
Fault record						
FLTRFRC1: 1						
FLTRFRC1						
Operation		on				
Trig mode		From operate				
A measurement mode		DFT				
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Operation		on				
Mem. warning level		0	%	0	100	
Mem. alarm level		0	%	0	100	
Generic timers						
TONGAPC1: 1						
TON(1)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TONGAPC2: 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
TON(2)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TOFGAPC1: 1						
TOF(1)						
Off delay time 1		500	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
TOFGAPC2: 2						
TOF(2)						
Off delay time 1		0	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
PTGAPC1: 1						
PT(1)						
Pulse time 1		150	ms	0	3600000	
Pulse time 2		150	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
PTGAPC2: 2						
PT(2)						
Pulse time 1		0	ms	0	3600000	
Pulse time 2		0	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
Generic logic						
SPCGAPC1: 1						
SPC(1)						
General						
Loc Rem restriction		False				
Output 1						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM CLOSE CMD (DIRECT)			64 characters	
Output 2						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM OPEN CMD (DIRECT)			64 characters	
Output 3						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		RESET ALARMS			64 characters	
Output 4						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 4			64 characters	
Output 5						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 5			64 characters	
Output 6						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 6			64 characters	
Output 7						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 7			64 characters	
Output 8						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		SPCGAPC1 Output 8			64 characters	
Output 9						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 9			64 characters	
Output 10						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 10			64 characters	
Output 11						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 11			64 characters	
Output 12						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 12			64 characters	
Output 13						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 13			64 characters	
Output 14						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 14			64 characters	
Output 15						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		EMERGENCY			64 characters	
Output 16						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 16			64 characters	
SRGAPC1: 1						
SR(1)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC2: 2						
SR(2)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC3: 3						
SR(3)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
MVGAPC1: 1						
MV(1)						
Output 1						
Description		MVGAPC1 Q1			20 characters	
Output 2						
Description		MVGAPC1 Q2			20 characters	
Output 3						
Description		MVGAPC1 Q3			20 characters	
Output 4						
Description		MVGAPC1 Q4			20 characters	
Output 5						
Description		MVGAPC1 Q5			20 characters	
Output 6						
Description		MVGAPC1 Q6			20 characters	
Output 7						
Description		MVGAPC1 Q7			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 8						
Description		MVGAPC1 Q8			20 characters	
MVGAPC2: 2						
MV(2)						
Output 1						
Description		MVGAPC2 Q1			20 characters	
Output 2						
Description		MVGAPC2 Q2			20 characters	
Output 3						
Description		MVGAPC2 Q3			20 characters	
Output 4						
Description		MVGAPC2 Q4			20 characters	
Output 5						
Description		MVGAPC2 Q5			20 characters	
Output 6						
Description		MVGAPC2 Q6			20 characters	
Output 7						
Description		MVGAPC2 Q7			20 characters	
Output 8						
Description		MVGAPC2 Q8			20 characters	
MVGAPC3: 3						
MV(3)						
Output 1						
Description		MVGAPC3 Q1			20 characters	
Output 2						
Description		MVGAPC3 Q2			20 characters	
Output 3						
Description		MVGAPC3 Q3			20 characters	
Output 4						
Description		MVGAPC3 Q4			20 characters	
Output 5						
Description		MVGAPC3 Q5			20 characters	
Output 6						
Description		MVGAPC3 Q6			20 characters	
Output 7						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC3 Q7			20 characters	
Output 8						
Description		MVGAPC3 Q8			20 characters	
MVGAPC4: 4						
MV(4)						
Output 1						
Description		MVGAPC4 Q1			20 characters	
Output 2						
Description		MVGAPC4 Q2			20 characters	
Output 3						
Description		MVGAPC4 Q3			20 characters	
Output 4						
Description		MVGAPC4 Q4			20 characters	
Output 5						
Description		MVGAPC4 Q5			20 characters	
Output 6						
Description		MVGAPC4 Q6			20 characters	
Output 7						
Description		MVGAPC4 Q7			20 characters	
Output 8						
Description		MVGAPC4 Q8			20 characters	
General: 0						
General						
Software reset		Cancel				
HMI: 0						
HMI						
FB naming convention		IEC61850				
Backlight timeout		3	min	1	60	
Web HMI mode		On				
HMI timeout		15	min	1	60	
SLD symbol format		IEC				
Setting visibility		Advanced				
User defined name		Disabled				
Time: 0						
Time						
System time						
Time format		24H:MM:SS:MS				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Date format		DD.MM.YYYY				
Date		0			20 characters	
Time		0			20 characters	
Local time offset		0	min	-840	840	
Daylight saving time						
DST in use		True				
DST on time (hours)		2	h	0	23	
DST on time (minutes)		0	min	0	59	
DST on date (day)		1		1	31	
DST on date (month)		May				
DST on day (weekday)		reserved				
DST off time (hours)		2	h	0	23	
DST off time (minutes)		0	min	0	59	
DST off date (day)		25		1	31	
DST off date (month)		September				
DST off day (weekday)		reserved				
DST offset		60	min	-720	720	
SNTP						
IP SNTP primary		192.168.2.166				
IP SNTP secondary		192.168.2.165				
Synchronization						
Synch source		SNTP				
PTP Profile		IEEE C37.238-2011				
PTP domain ID		0		0	255	
PTP priority 1		128		0	255	
PTP priority 2		128		0	255	
PTP Slave-only		False				
Time master mode		Master with finite holdover				
Clear clock list		False				
Time Syn Src Tmm		3	min	1	65535	
Setting group: 0						
Setting group						
SG operation mode		Operator				
Control: 0						
Control						
LHMI						
Close delay mode		Not in use				
Close delay		60	s	5	900	
Breaker operation		After confirmation				
Programmable LEDs: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Programmable LEDs						
General						
Alarm colour		Red				
LED 1						
Alarm mode		Follow-S				
Description		27/59 Voltage Protection			64 characters	
LED 2						
Alarm mode		Follow-S				
Description		Contactor Ready			64 characters	
LED 3						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 4						
Alarm mode		Follow-S				
Description		Contactor Ready to close			64 characters	
LED 5						
Alarm mode		Follow-S				
Description		50/51 Current Protection			64 characters	
LED 6						
Alarm mode		Follow-S				
Description		51N/59N Earth Fault Protection			64 characters	
LED 7						
Alarm mode		Follow-S				
Description		Earthing Switch Unlocked			64 characters	
LED 8						
Alarm mode		Follow-S				
Description		Contactor Truck Unlocked			64 characters	
LED 9						
Alarm mode		Follow-S				
Description		Arc Protection Trip			64 characters	
LED 10						
Alarm mode		Follow-S				
Description		GOOSE Alarm			64 characters	
LED 11						
Alarm mode		Follow-S				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		-			64 characters	
Programmable LEDs: 2						
Programmable LEDs						
LED 12						
Alarm mode		Follow-S				
Description		Space Heater ON			64 characters	
LED 13						
Alarm mode		Follow-S				
Description		Transformer Protections			64 characters	
LED 14						
Alarm mode		Follow-S				
Description		Contactor Fuses Trip			64 characters	
LED 15						
Alarm mode		Follow-S				
Description		Trip from LV			64 characters	
LED 16						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 17						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 18						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 19						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 20						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 21						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 22						
Alarm mode		Follow-S				
Description		-			64 characters	
I/O modules: 0						
I/O modules						
Common settings						
Slot specific threshold		False				
Slot specific hysteresis		False				
Input threshold voltage		16	Vdc	16	176	
Input threshold hysteresis		10	%	10	50	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input osc. level		30	events/s	2	50	
Input osc. hyst		10	events/s	2	50	
User Activity log: 0						
User Activity log						
Server Settings 1						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address		192.168.2.5				
Server Settings 2						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address2		192.168.2.6				
Authorization: 1						
Authorization						
Security						
Remote Update		Disable				
Passwords						
Remote override		True				
Local override		True				
CAM						
Clear AD userlist		False				
Network1						
FTP write access		On				
MMS write access		On				
HTTPS write access		On				
HMI						
FTP write access		On				
MMS write access		On				
Monitoring						
Communication						
Ethernet						
RCHLCCH1: 1						
RCHLCCH1						
Activity						
CHLIV_A		False				
REDCHLIV_B		False				
Link statuses						
LNKLIV_A		False				
REDLNKLIV_B		False				
Diagnostics						
A_B						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH1: 1						
SCHLCCH1						
Activity						
CH1LIV		False				
Link statuses						
LNK1LIV		False				
Diagnostics						
X1						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH2: 2						
SCHLCCH2						
Activity						
CH2LIV		False				
Link statuses						
LNK2LIV		False				
Diagnostics						
X2						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH3: 3						
SCHLCCH3						
Activity						
CH3LIV		False				
Link statuses						
LNK3LIV		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Diagnostics						
X3						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
HMILCCH1: 1						
HMILCCH1						
Activity						
HMICHLIV		False				
Link statuses						
HMILNKLIV		Down				
SCHLCCH6: 6						
SCHLCCH6						
Activity						
CH6LIV		False				
Link statuses						
LNK6LIV		False				
Diagnostics						
X6						
Temperature		0,0	°C	-128,0	128,0	
Voltage		0,000	V	0,000	6,550	
Bias current		0,0	mA	0,0	131,0	
TX power		0,000	mW	0,000	6,550	
RX power		0,000	mW	0,000	6,550	
XCVR detected		False				
RX power alarm		False				
TX power alarm		False				
Voltage alarm		False				
Temperature alarm		False				
Part name		0			20 characters	
Protocols						
MMSLPRT1: 1						
MMS(1)						
CHLIV		False				
Successful conn.		0		0	10000000	
Failed conn.		0		0	10000000	
Concludes		0		0	10000000	
Sent aborts		0		0	10000000	
Recv. aborts		0		0	10000000	
Sent rejects		0		0	10000000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Recv. requests		0		0	10000000	
Failed requests		0		0	10000000	
Reads		0		0	10000000	
Failed reads		0		0	10000000	
Writes		0		0	10000000	
Failed writes		0		0	10000000	
Reports		0		0	10000000	
Active conn.		0		0	10000000	
Reset counters		False				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT2: 2						
MBSLPRT2						
Modbus (2)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Rec. memory used		0	%	0	100	
MEM_WARN		False				
MEM_ALARM		False				
I/O status						
Binary input values						
Slot B (BIO): 1						
Slot B (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot C (BIO): 1						
Slot C (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot D (BIO): 1						
Slot D (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
TCS Input 1		False				
TCS Input 2		False				
Binary output values						
Slot B (BIO): 1						
Slot B (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Slot C (BIO): 1						
Slot C (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot D (BIO): 1						
Slot D (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot G (PSM): 1						
Slot G (PSM)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Output 9		False				
Output 10		False				
Analog inputs						
Current (3I): 1						
Current (3I)						
ALARM		False				
WARNING		False				
Current (Io): 1						
Current (Io)						
ALARM		False				
WARNING		False				
Current (IoB): 2						
Current (IoB)						
ALARM		False				
WARNING		False				
Voltage (Uo): 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage (Uo)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (3U): 1						
Voltage (3U)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Measurements						
CMMXU1: 1						
3I(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
I_INST_A		0,00	xIn	0,00	40,00	
I_ANGL_A		0,00	deg	-180,00	180,00	
I_DB_A		0,00	xIn	0,00	40,00	
I_DMD_A		0,00	xIn	0,00	40,00	
I_RANGE_A		normal				
I_INST_B		0,00	xIn	0,00	40,00	
I_ANGL_B		0,00	deg	-180,00	180,00	
I_DB_B		0,00	xIn	0,00	40,00	
I_DMD_B		0,00	xIn	0,00	40,00	
I_RANGE_B		normal				
I_INST_C		0,00	xIn	0,00	40,00	
I_ANGL_C		0,00	deg	-180,00	180,00	
I_DB_C		0,00	xIn	0,00	40,00	
I_DMD_C		0,00	xIn	0,00	40,00	
I_RANGE_C		normal				
RESCMMXU1: 1						
Io(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
I_INST_RES		0,00	xIn	0,00	40,00	
I_ANGL_RES		0,00	deg	-180,00	180,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
I_DB_RES		0,00	xIn	0,00	40,00	
I_DMD_RES		0,00	xIn	0,00	40,00	
I_RANGE_RES		normal				
RESCMMXU2: 2						
Io(2)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
I_INST_RES		0,00	xIn	0,00	40,00	
I_ANGL_RES		0,00	deg	-180,00	180,00	
I_DB_RES		0,00	xIn	0,00	40,00	
I_DMD_RES		0,00	xIn	0,00	40,00	
I_RANGE_RES		normal				
RESVMMXU1: 1						
Uo(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
U_INST_RES		0,00	xUn	0,00	4,00	
U_ANGL_RES		0,00	deg	-180,00	180,00	
U_DB_RES		0,00	xUn	0,00	4,00	
U_DMD_RES		0,00	xUn	0,00	4,00	
U_RANGE_RES		normal				
VMMXU1: 1						
3U(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
CSMSQI1: 1						
I1,I2,I0(1)						
Outputs						
I2_HIGH_AL		False				
I2_HIGH_WARN		False				
I1_HIGH_AL		False				
I1_HIGH_WARN		False				
I1_LOW_WARN		False				
I1_LOW_AL		False				
I0_HIGH_AL		False				
I0_HIGH_WARN		False				
Monitored data						
I2_INST		0,00	xIn	0,00	40,00	
I2_ANGL		0,00	deg	-180,00	180,00	
I2_DB		0,00	xIn	0,00	40,00	
I2_RANGE		normal				
I1_INST		0,00	xIn	0,00	40,00	
I1_ANGL		0,00	deg	-180,00	180,00	
I1_DB		0,00	xIn	0,00	40,00	
I1_RANGE		normal				
I0_INST		0,00	xIn	0,00	40,00	
I0_ANGL		0,00	deg	-180,00	180,00	
I0_DB		0,00	xIn	0,00	40,00	
I0_RANGE		normal				
VSMSQI1: 1						
U1,U2,U0(1)						
Outputs						
U2_HIGH_AL		False				
U2_HIGH_WARN		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U1_HIGH_AL		False				
U1_HIGH_WARN		False				
U1_LOW_WARN		False				
U1_LOW_AL		False				
U0_HIGH_AL		False				
U0_HIGH_WARN		False				
Monitored data						
U2_INST		0,00	xUn	0,00	4,00	
U2_ANGL		0,00	deg	-180,00	180,00	
U2_DB		0,00	xUn	0,00	4,00	
U2_RANGE		normal				
U1_INST		0,00	xUn	0,00	4,00	
U1_ANGL		0,00	deg	-180,00	180,00	
U1_DB		0,00	xUn	0,00	4,00	
U1_RANGE		normal				
U0_INST		0,00	xUn	0,00	4,00	
U0_ANGL		0,00	deg	-180,00	180,00	
U0_DB		0,00	xUn	0,00	4,00	
U0_RANGE		normal				
PEMMXU1: 1						
P,E(1)						
Inputs						
RSTACM		False				
Monitored data						
S_INST		0,0	kVA	-999999,9	999999,9	
S_DB		0,0	kVA	-999999,9	999999,9	
S_DMD		0,0	kVA	-999999,9	999999,9	
P_INST		0,0	kW	-999999,9	999999,9	
P_DB		0,0	kW	-999999,9	999999,9	
P_DMD		0,0	kW	-999999,9	999999,9	
Q_INST		0,0	kVAr	-999999,9	999999,9	
Q_DB		0,0	kVAr	-999999,9	999999,9	
Q_DMD		0,0	kVAr	-999999,9	999999,9	
PF_INST		0,00		-1,00	1,00	
PF_DB		0,00		-1,00	1,00	
PF_DMD		0,00		-1,00	1,00	
EA_RV_ACM		0	kWh	0	999999999	
ER_RV_ACM		0	kVArh	0	999999999	
EA_FWD_ACM		0	kWh	0	999999999	
ER_FWD_ACM		0	kVArh	0	999999999	
FMMXU1: 1						
f(1)						
Monitored data						
F_INST		50,00	Hz	35,00	75,00	
F_DB		50,00	Hz	35,00	75,00	
F_RANGE		normal				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Generic logic						
SPCGAPC1: 1						
SPC(1)						
Inputs						
BLOCK		False				
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
IN9		False				
IN10		False				
IN11		False				
IN12		False				
IN13		False				
IN14		False				
IN15		False				
IN16		False				
Outputs						
O1		False				
O2		False				
O3		False				
O4		False				
O5		False				
O6		False				
O7		False				
O8		False				
O9		False				
O10		False				
O11		False				
O12		False				
O13		False				
O14		False				
O15		False				
O16		False				
SRGAPC1: 1						
SR(1)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC2: 2						
SR(2)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q7		False				
Q8		False				
SRGAPC3: 3						
SR(3)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC1: 1						
MV(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC2: 2						
MV(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC3: 3						
MV(3)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC4: 4						
MV(4)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Inputs						
ENA_OPEN		True				
ENA_CLOSE		True				
BLK_OPEN		False				
BLK_CLOSE		False				
SYNC_OK		True				
SYNC_BYPASS		False				
ITL_BYPASS		False				
Outputs						
SELECTED		False				
EXE_OP		False				
EXE_CL		False				
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
OPEN_ENAD		False				
CLOSE_ENAD		False				
CTL_ITL_BLKD		False				
Monitored data						
POSITION		intermediate				
DCSXSWI1: 1						
I<->O DC(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OKPOS		False				
Monitored data						
POSITION		intermediate				
ESSXSWI1: 1						
I<->O ES(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
Current protection						
50-2; PHIPTOC1: 1						
3I>>>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
50-1; PHHPTOC1: 1						
3I>>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
50; PHHPTOC2: 2						
3I>>(2)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
51; PHLPTOC1: 1						
3I>(1)						
Inputs						
BLOCK		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
51; PHLPTOC2: 2						
3I>(2)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
68; INRPHAR1: 1						
3I2f>(1)						
Inputs						
BLOCK		False				
Outputs						
BLK2H		False				
51G; EFHPTOC1: 1						
Io>>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
51N; EFLPTOC1: 1						
Io>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Voltage protection						
59N-1; ROVPTOV1: 1						
Uo>(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59-1; PHPTOV1: 1						
3U>(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-1; PHPTUV1: 1						
3U<(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Inputs						
BLOCK		False				
START		False				
POSCLOSE		False				
CB_FAULT		False				
Outputs						
CB_FAULT_AL		False				
TRBU		False				
TRRET		False				
ARC BUSBAR; ARCSARC1: 11						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ARC(1)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CB; ARCSARC2: 21						
ARC(2)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Inputs						
BLOCK		False				
OPERATE		False				
RST_LKOUT		False				
Outputs						
TRIP		False				
CL_LKOUT		False				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Inputs						
BLOCK		False				
POSOPEN		False				
POSCLOSE		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPEN_CB_EXE		False				
CLOSE_CB_EXE		False				
PRES_ALM_IN		False				
PRES_LO_IN		False				
RST_IPOW		False				
RST_CB_WEAR		False				
RST_TRV_T		False				
RST_SPR_T		False				
Outputs						
TRV_T_OP_ALM		False				
TRV_T_CL_ALM		False				
SPR_CHR_ALM		False				
OPR_ALM		False				
OPR_LO		False				
IPOW_ALM		False				
IPOW_LO		False				
CB_LIFE_ALM		False				
MON_ALM		False				
PRES_ALM		False				
PRES_LO		False				
OPENPOS		False				
INVALIDPOS		False				
CLOSEPOS		False				
Monitored data						
T_TRV_OP		0	ms	0	60000	
T_TRV_CL		0	ms	0	60000	
T_SPR_CHR		0,00	s	0,00	99,99	
NO_OPR		0		0	99999	
INA_DAYS		0		0	9999	
CB_LIFE_A		0		-99999	99999	
CB_LIFE_B		0		-99999	99999	
CB_LIFE_C		0		-99999	99999	
IPOW_A		0,000		0,000	30000,000	
IPOW_B		0,000		0,000	30000,000	
IPOW_C		0,000		0,000	30000,000	
Supervision						
TCSSCBR1: 1						
TCS(1)						
Inputs						
BLOCK		False				
Outputs						
ALARM		False				
CCSPVC1: 1						
MCS 3I(1)						
Inputs						
BLOCK		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
FAIL		False				
ALARM		False				
Monitored data						
IDIFF		0,00	xIn	0,00	40,00	
SEQSPVC1: 1						
FUSEF(1)						
Inputs						
BLOCK		False				
CB_CLOSED		False				
DISCON_OPEN		False				
MINCB_OPEN		False				
Outputs						
FUSEF_3PH		False				
FUSEF_U		False				
Communication						
GSELPRT1: 1						
GSE(1)						
Outputs						
ALARM		False				
Monitoring						
Reset counters		False				
Received msgs		0		0	10000000	
Transmitted msgs		0		0	10000000	
State changes		0		0	10000000	
SeqNum changes		0		0	10000000	
Test msgs		0		0	10000000	
State warnings		0		0	10000000	
Seq. warnings		0		0	10000000	
Recv. timeouts		0		0	10000000	
ConfRev errors		0		0	10000000	
NdsComm errors		0		0	10000000	
Dataset errors		0		0	10000000	
Replay Prot warnings		0		0	10000000	
Generic timers						
TONGAPC1: 1						
TON(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TONGAPC2: 2						
TON(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
T_LEFT8		0	s	0	3600	
TOFGAPC1: 1						
TOF(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TOFGAPC2: 2						
TOF(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC1: 1						
PT(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC2: 2						
PT(2)						
Inputs						
IN1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
FB status						
50-2; PHIPTOC1: 1						
3I>>>(1)						
Current protection						
3I>>>(1)		on				
50-1; PHHPTOC1: 1						
3I>>(1)						
Current protection						
3I>>(1)		on				
50; PHHPTOC2: 2						
3I>>(2)						
Current protection						
3I>>(2)		on				
51; PHLPTOC1: 1						
3I>(1)						
Current protection						
3I>(1)		on				
51; PHLPTOC2: 2						
3I>(2)						
Current protection						
3I>(2)		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
68; INRPHAR1: 1						
3I2f>(1)						
Current protection						
3I2f>(1)		on				
51G; EFHPTOC1: 1						
Io>>(1)						
Current protection						
Io>>(1)		on				
51N; EFLPTOC1: 1						
Io>(1)						
Current protection						
Io>(1)		on				
59-1; PHPTOV1: 1						
3U>(1)						
Voltage protection						
3U>(1)		on				
27-1; PHPTUV1: 1						
3U<(1)						
Voltage protection						
3U<(1)		on				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Voltage protection						
Uo>(1)		on				
59N-2; ROVPTOV2: 2						
Uo>(2)						
Voltage protection						
Uo>(2)		on				
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Other protection						
3I>/Io>BF(1)		on				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Other protection						
ARC(1)		on				
ARC CB; ARCSARC2: 21						
ARC(2)						
Other protection						
ARC(2)		on				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Other protection						
ARC(3)		on				
TRPPTRC1: 1						
Master Trip(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Trip logic						
Master Trip(1)		on				
SSCBR1: 1						
CBCM(1)						
Condition monitoring						
CBCM(1)		on				
TCSSCBR1: 1						
TCS(1)						
Supervision						
TCS(1)		on				
CCSPVC1: 1						
MCS 3I(1)						
Supervision						
MCS 3I(1)		on				
SEQSPVC1: 1						
FUSEF(1)						
Supervision						
FUSEF(1)		on				
Recorded data						
Measurements						
CMMXU1: 1						
3I(1)						
Max demand IL1		0,00	xIn	0,00	40,00	
Max demand IL2		0,00	xIn	0,00	40,00	
Max demand IL3		0,00	xIn	0,00	40,00	
Min demand IL1		0,00	xIn	0,00	40,00	
Min demand IL2		0,00	xIn	0,00	40,00	
Min demand IL3		0,00	xIn	0,00	40,00	
Time max demand IL1		0			34 characters	
Time max demand IL2		0			34 characters	
Time max demand IL3		0			34 characters	
Time min demand IL1		0			34 characters	
Time min demand IL2		0			34 characters	
Time min demand IL3		0			34 characters	
RESCMMXU1: 1						
Io(1)						
Max demand Io		0,00	xIn	0,00	40,00	
Min demand Io		0,00	xIn	0,00	40,00	
Time max demand Io		0			34 characters	
Time min demand Io		0			34 characters	
RESCMMXU2: 2						
Io(2)						
Max demand Io		0,00	xIn	0,00	40,00	
Min demand Io		0,00	xIn	0,00	40,00	
Time max demand Io		0			34 characters	
Time min demand Io		0			34 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PEMMXU1: 1						
P,E(1)						
Max demand S		0,0	kVA	-999999,9	999999,9	
Min demand S		0,0	kVA	-999999,9	999999,9	
Max demand P		0,0	kW	-999999,9	999999,9	
Min demand P		0,0	kW	-999999,9	999999,9	
Max demand Q		0,0	kVAr	-999999,9	999999,9	
Min demand Q		0,0	kVAr	-999999,9	999999,9	
Time max dmd S		0			34 characters	
Time min dmd S		0			34 characters	
Time max dmd P		0			34 characters	
Time min dmd P		0			34 characters	
Time max dmd Q		0			34 characters	
Time min dmd Q		0			34 characters	
FLTRFRC1: 1						
FLTRFRC1						
Fault record						
Fault number		0		0	999999	
Time and date		0			34 characters	
Protection (rec. set 1)		None				
Protection (rec. set 2)		None				
Start duration		0,00	%	0,00	100,00	
Operate time		0,000	s	0,000	999999,999	
Breaker clear time		0,000	s	0,000	3,000	
Fault distance		0,00	pu	0,00	3000,00	
Fault resistance		0,00	ohm	0,00	3000,00	
Fault reactance		0,00	ohm	0,00	3000,00	
Active group		1		1	6	
Shot pointer		1		1	7	
Max diff current IL1:1		0,000	pu	0,000	80,000	
Max diff current IL2:1		0,000	pu	0,000	80,000	
Max diff current IL3:1		0,000	pu	0,000	80,000	
Diff current IL1:1		0,000	pu	0,000	80,000	
Diff current IL2:1		0,000	pu	0,000	80,000	
Diff current IL3:1		0,000	pu	0,000	80,000	
Max bias current IL1:1		0,000	pu	0,000	50,000	
Max bias current IL2:1		0,000	pu	0,000	50,000	
Max bias current IL3:1		0,000	pu	0,000	50,000	
Bias current IL1:1		0,000	pu	0,000	50,000	
Bias current IL2:1		0,000	pu	0,000	50,000	
Bias current IL3:1		0,000	pu	0,000	50,000	
Diff current Io:1		0,000	pu	0,000	80,000	
Bias current Io:1		0,000	pu	0,000	50,000	
Max current IL1:1		0,000	xIn	0,000	50,000	
Max current IL2:1		0,000	xIn	0,000	50,000	
Max current IL3:1		0,000	xIn	0,000	50,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Max current Io:1		0,000	xIn	0,000	50,000	
Current IL1:1		0,000	xIn	0,000	50,000	
Current IL2:1		0,000	xIn	0,000	50,000	
Current IL3:1		0,000	xIn	0,000	50,000	
Current Io:1		0,000	xIn	0,000	50,000	
Current Io-Calc:1		0,000	xIn	0,000	50,000	
Current Ps-Seq:1		0,000	xIn	0,000	50,000	
Current Ng-Seq:1		0,000	xIn	0,000	50,000	
Max current IL1:2		0,000	xIn	0,000	50,000	
Max current IL2:2		0,000	xIn	0,000	50,000	
Max current IL3:2		0,000	xIn	0,000	50,000	
Max current Io:2		0,000	xIn	0,000	50,000	
Current IL1:2		0,000	xIn	0,000	50,000	
Current IL2:2		0,000	xIn	0,000	50,000	
Current IL3:2		0,000	xIn	0,000	50,000	
Current Io:2		0,000	xIn	0,000	50,000	
Current Io-Calc:2		0,000	xIn	0,000	50,000	
Current Ps-Seq:2		0,000	xIn	0,000	50,000	
Current Ng-Seq:2		0,000	xIn	0,000	50,000	
Max current IL1:3		0,000	xIn	0,000	50,000	
Max current IL2:3		0,000	xIn	0,000	50,000	
Max current IL3:3		0,000	xIn	0,000	50,000	
Max current Io:3		0,000	xIn	0,000	50,000	
Current IL1:3		0,000	xIn	0,000	50,000	
Current IL2:3		0,000	xIn	0,000	50,000	
Current IL3:3		0,000	xIn	0,000	50,000	
Current Io:3		0,000	xIn	0,000	50,000	
Current Io-Calc:3		0,000	xIn	0,000	50,000	
Current Ps-Seq:3		0,000	xIn	0,000	50,000	
Current Ng-Seq:3		0,000	xIn	0,000	50,000	
Voltage UL1:1		0,000	xUn	0,000	4,000	
Voltage UL2:1		0,000	xUn	0,000	4,000	
Voltage UL3:1		0,000	xUn	0,000	4,000	
Voltage U12:1		0,000	xUn	0,000	4,000	
Voltage U23:1		0,000	xUn	0,000	4,000	
Voltage U31:1		0,000	xUn	0,000	4,000	
Voltage Uo:1		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:1		0,000	xUn	0,000	4,000	
Voltage UL1:2		0,000	xUn	0,000	4,000	
Voltage UL2:2		0,000	xUn	0,000	4,000	
Voltage UL3:2		0,000	xUn	0,000	4,000	
Voltage U12:2		0,000	xUn	0,000	4,000	
Voltage U23:2		0,000	xUn	0,000	4,000	
Voltage U31:2		0,000	xUn	0,000	4,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage Uo:2		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:2		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:2		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:2		0,000	xUn	0,000	4,000	
Voltage UL1:3		0,000	xUn	0,000	4,000	
Voltage UL2:3		0,000	xUn	0,000	4,000	
Voltage UL3:3		0,000	xUn	0,000	4,000	
Voltage UL12:3		0,000	xUn	0,000	4,000	
Voltage UL23:3		0,000	xUn	0,000	4,000	
Voltage UL31:3		0,000	xUn	0,000	4,000	
Voltage Uo:3		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:3		0,000	xUn	0,000	4,000	
PTTR thermal level		0,00		0,00	99,99	
I2/I1>(1) rat. I2/I1		0,00	%	0,00	999,99	
Frequency:1		50,00	Hz	0,00	80,00	
Frequency gradient:1		0,00	Hz/s	-10,00	10,00	
Frequency:2		50,00	Hz	0,00	80,00	
Frequency gradient:2		0,00	Hz/s	-10,00	10,00	
Frequency:3		50,00	Hz	0,00	80,00	
Frequency gradient:3		0,00	Hz/s	-10,00	10,00	
Conductance Yo		0,00	mS	-1000,00	1000,00	
Susceptance Yo		0,00	mS	-1000,00	1000,00	
Angle Uo:1 - Io:1		0,00	deg	-180,00	180,00	
Angle U23:1- IL1:1		0,00	deg	-180,00	180,00	
Angle U31:1 - IL2:1		0,00	deg	-180,00	180,00	
Angle U12:1 - IL3:1		0,00	deg	-180,00	180,00	
Angle Uo:2 - Io:2		0,00	deg	-180,00	180,00	
Angle U23:2 - IL1:2		0,00	deg	-180,00	180,00	
Angle U31:2 - IL2:2		0,00	deg	-180,00	180,00	
Angle U12:2 - IL3:2		0,00	deg	-180,00	180,00	
Angle Uo:3 - Io:3		0,00	deg	-180,00	180,00	
Angle U23:3 - IL1:3		0,00	deg	-180,00	180,00	
Angle U31:3 - IL2:3		0,00	deg	-180,00	180,00	
Angle U12:3 - IL3:3		0,00	deg	-180,00	180,00	
Control command						
Control: 0						
Control						
LR state		Remote				
Detached LHMI						
EIHMI1: 1						
EIHMI1						
CONNECTION		False				
Service port IP address		0			20 characters	
Main unit port IP address		0			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Setting group: 0						
Setting group						
Outputs						
SG_LOGIC_SEL		False				
SG_1_ACT		False				
SG_2_ACT		False				
SG_3_ACT		False				
SG_4_ACT		False				
SG_5_ACT		False				
SG_6_ACT		False				
Programmable LEDs: 1						
Programmable LEDs						
Inputs						
LED 1						
OK		False				
ALARM		False				
RESET		False				
LED 2						
OK		False				
ALARM		False				
RESET		False				
LED 3						
OK		False				
ALARM		False				
RESET		False				
LED 4						
OK		False				
ALARM		False				
RESET		False				
LED 5						
OK		False				
ALARM		False				
RESET		False				
LED 6						
OK		False				
ALARM		False				
RESET		False				
LED 7						
OK		False				
ALARM		False				
RESET		False				
LED 8						
OK		False				
ALARM		False				
RESET		False				
LED 9						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OK		False				
ALARM		False				
RESET		False				
LED 10						
OK		False				
ALARM		False				
RESET		False				
LED 11						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 1		None				
Programmable LED 2		None				
Programmable LED 3		None				
Programmable LED 4		None				
Programmable LED 5		None				
Programmable LED 6		None				
Programmable LED 7		None				
Programmable LED 8		None				
Programmable LED 9		None				
Programmable LED 10		None				
Programmable LED 11		None				
Programmable LEDs: 2						
Programmable LEDs						
Inputs						
LED 12						
OK		False				
ALARM		False				
RESET		False				
LED 13						
OK		False				
ALARM		False				
RESET		False				
LED 14						
OK		False				
ALARM		False				
RESET		False				
LED 15						
OK		False				
ALARM		False				
RESET		False				
LED 16						
OK		False				
ALARM		False				
RESET		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
LED 17						
OK		False				
ALARM		False				
RESET		False				
LED 18						
OK		False				
ALARM		False				
RESET		False				
LED 19						
OK		False				
ALARM		False				
RESET		False				
LED 20						
OK		False				
ALARM		False				
RESET		False				
LED 21						
OK		False				
ALARM		False				
RESET		False				
LED 22						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 12		None				
Programmable LED 13		None				
Programmable LED 14		None				
Programmable LED 15		None				
Programmable LED 16		None				
Programmable LED 17		None				
Programmable LED 18		None				
Programmable LED 19		None				
Programmable LED 20		None				
Programmable LED 21		None				
Programmable LED 22		None				
IED status: 1						
IED status						
CAM						
UAM mode		Local				
CAM server1		Offline				
CAM server2		Offline				
Replication		N.A.				
Last update		0			34 characters	
PKI						
CA Server Status		Offline				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Time synchronization						
PTP P2P delay X1		0	ns	-2147483648	2147483647	
PTP P2P delay X2		0	ns	-2147483648	2147483647	
PTP P2P delay X3		0	ns	-2147483648	2147483647	
Self-supervision						
Warning		All ok				
Internal Fault		All ok				
Boot up time		0			34 characters	
Boot up reason		None				
Device state		on				
Composition changes						
No of comp. changes		0		0	100000	
Setting changes						
Setting changes		0		0	20000	
Setting time		0			34 characters	
SMV accuracy						
SMV Synch accuracy		InternalClock				
Local synch accuracy		0	us	0	1000000000	
Max Dev synch Acc		0	us	0	1000000000	
Information						
HW modules						
Slot B (BIO): 1						
Slot B (BIO)						
Article number		2RCA034506 A0001			20 characters	
SW version		0x105			20 characters	
HW revision		G			20 characters	
Serial number		1VH341247127			20 characters	
Manufacturing date		24.2.2024 00:00:00.000			34 characters	
Test date		24.2.2024 00:00:00.000			34 characters	
Slot C (BIO): 1						
Slot C (BIO)						
Article number		2RCA034506 A0001			20 characters	
SW version		0x105			20 characters	
HW revision		G			20 characters	
Serial number		1VH341247119			20 characters	
Manufacturing date		24.2.2024 00:00:00.000			34 characters	
Test date		24.2.2024 00:00:00.000			34 characters	
Slot D (BIO): 1						
Slot D (BIO)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Article number		2RCA034536 A0001			20 characters	
SW version		0x105			20 characters	
HW revision		F			20 characters	
Serial number		1VH341253356			20 characters	
Manufacturing date		26.4.2024 00:00:00.000			34 characters	
Test date		26.4.2024 00:00:00.000			34 characters	
Slot E (AIM): 1						
Slot E (AIM)						
Article number		2RCA034442 A0001			20 characters	
SW version		0x104			20 characters	
HW revision		H			20 characters	
Serial number		1VH341244843			20 characters	
Manufacturing date		11.2.2024 00:00:00.000			34 characters	
Test date		11.2.2024 00:00:00.000			34 characters	
Slot F (AIM): 1						
Slot F (AIM)						
Article number		2RCA034442 A0001			20 characters	
SW version		0x104			20 characters	
HW revision		H			20 characters	
Serial number		1VH341244839			20 characters	
Manufacturing date		11.2.2024 00:00:00.000			34 characters	
Test date		11.2.2024 00:00:00.000			34 characters	
Slot G (PSM): 1						
Slot G (PSM)						
Article number		2RCA034470 A0001			20 characters	
SW version		0x101			20 characters	
HW revision		H			20 characters	
Serial number		1VH341219400			20 characters	
Manufacturing date		3.10.2023 00:00:00.000			34 characters	
Test date		3.10.2023 00:00:00.000			34 characters	
EIHMI1: 1						
EIHMI1						
Detached LHMI						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Article number		2RCA033008A0001			20 characters	
Application version		22-12-12-18:25			20 characters	
Firmware version		20230131222023			20 characters	
HW revision		V			20 characters	
Serial number		1VHR51024465			20 characters	
Manufacturing date		16.5.2024 01:00:00.000			34 characters	
Test date		16.5.2024 01:00:00.000			34 characters	
Service port MAC address		00:21:C1:34:82:A9			20 characters	
Main unit port MAC address		00:21:C1:34:82:AA			20 characters	
Slot A1 (ARC): 1						
Slot A1 (ARC)						
Article number		2RCA032261A0001			20 characters	
SW version		0x107			20 characters	
HW revision		G			20 characters	
Serial number		1VH341251261			20 characters	
Manufacturing date		28.3.2024 00:00:00.000			34 characters	
Test date		28.3.2024 00:00:00.000			34 characters	
Slot A2 (COM): 1						
Slot A2 (COM)						
Article number		2RCA034478A0001			20 characters	
SW version		0x11D			20 characters	
HW revision		L			20 characters	
Serial number		1VH341254202			20 characters	
Manufacturing date		15.4.2024 00:00:00.000			34 characters	
Test date		15.4.2024 00:00:00.000			34 characters	
Product identifiers: 0						
Product identifiers						
Type		REX640			20 characters	
Product version		1			64 characters	
Serial number		1VHR81041856			20 characters	
Production date		10.5.2024 01:00:00.000			34 characters	
SW version		1.3.3			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SW date		11.3.2024 13:07:00.000			34 characters	
SW number		2RCA057448 D			20 characters	
Interface level		0			64 characters	
Order code		REX640_1A C2			20 characters	
Site identifiers: 0						
Site identifiers						
Customer name		0			20 characters	
Street		0			20 characters	
House number		0			20 characters	
ZIP/Postal code		0			20 characters	
City/Province		0			20 characters	
State		0			20 characters	
Country		0			20 characters	
System identifiers: 0						
System identifiers						
Technical key		AA1L1Q04A1			20 characters	
IEC 61850 version		Edition 2.1			24 characters	
Engineering model		ABB				
HW modules: 0						
HW modules						
Main board						
Article number		2RCA036414 A0001			20 characters	
SW version		0x5402			20 characters	
HW revision		J			20 characters	
Serial number		1VH3412537 21			20 characters	
Manufacturing date		12.4.2024 00:00:00.000			34 characters	
Test date		12.4.2024 00:00:00.000			34 characters	
Clear						
Disturbance recorder: 0						
Disturbance recorder						
Disturbance records		Cancel				
Clear: 0						
Clear						
Indications and LEDs		Cancel				
Programmable LEDs		Cancel				
Events		Cancel				
Metering records		Cancel				
Power quality data		Cancel				
FLTRFRC1: 1						
FLTRFRC1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Fault records		Cancel				
LDPRLRC1: 1						
LDPRLRC1						
Load Profile record		Cancel				
TRPPTRC1: 1						
Master Trip(1)						
Master Trip(1)		Cancel				
SSCBR1: 1						
CBCM(1)						
CBCM(1) acc.energy		Cancel				
CBCM(1) rem.life		Cancel				
CBCM(1) travel times		Cancel				
CBCM(1) spr.charge t		Cancel				
PEMMXU1: 1						
P,E(1)						
P,E(1) acc.energy		Cancel				
Application Configuration						
General						
Settings						
Setting group						
Protection: 0						
Setting group						
Active group		1		1	6	
Protection						
Settings						
Current protection						
50-2; PHIPTOC1: 1						
3I>>>(1)						
Operation		off				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		12,60	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		350	ms	20	300000	
settingGroup 2						
Start value		12,60	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		350	ms	20	300000	
settingGroup 3						
Start value		12,60	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		350	ms	20	300000	
settingGroup 4						
Start value		12,60	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operate delay time		350	ms	20	300000	
settingGroup 5						
Start value		12,60	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		350	ms	20	300000	
settingGroup 6						
Start value		12,60	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		350	ms	20	300000	
50-1; PHHPTOC1: 1						
3I>>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		2,65	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		2,65	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		2,65	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		2,65	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		2,65	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		2,65	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
50; PHHPTOC2: 2						
3I>>(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		2,10	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		50	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		2,10	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		50	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		2,10	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		50	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		2,10	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		50	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		2,10	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		50	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		2,10	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		50	ms	40	300000	
Operating curve type		IEC Def. Time				
51; PHLPTOC1: 1						
3I>(1)						
Operation		on				
Num of start phases		1 out of 3				
Minimum operate time		500	ms	20	60000	
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	50000,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	6,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 2						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 3						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 4						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 5						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 6						
Start value		1,00	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
51; PHLPTOC2: 2						
3I>(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	50000,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	6,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,52	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,52	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,52	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,52	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,52	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,52	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
68; INRPHAR1: 1						
3I2f>(1)						
Operation		off				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 3						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 4						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 5						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 6						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
51G; EFHPTOC1: 1						
Io>>(1)						
Operation		on				
Minimum operate time		100	ms	20	60000	
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,180		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 2						
Start value		0,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,180		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
settingGroup 3						
Start value		0,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,180		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 4						
Start value		0,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,180		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 5						
Start value		0,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,180		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 6						
Start value		0,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,180		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
51N; EFLPTOC1: 1						
Io>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage protection						
59-1; PHPTOV1: 1						
3U>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
27-1; PHPTUV1: 1						
3U<(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Enable block value		False				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 6						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 6						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Operation		off				
Current value		0,300	xIn	0,050	2,000	
Current value Res		0,30	xIn	0,05	2,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
CB failure trip mode		1 out of 3				
CB failure mode		Current				
CB fail retrip mode		Off				
Retrip time		120	ms	0	60000	
CB failure delay		240	ms	0	60000	
CB fault delay		5000	ms	0	60000	
Measurement mode		Peak-to-Peak				
Trip pulse time		200	ms	0	60000	
Start latching mode		Rising edge				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CB; ARCSARC2: 21						
ARC(2)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Light only				

Settings

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
REX640_A6						
IED Configuration						
HW Configuration						
Slot B (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot C (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot D (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input inversion						
Input 1 inversion		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
POSITION		intermediate				
SPCGAPC1: 1						
SPC(1)						
TRIG 1		False				
TRIG 2		False				
TRIG 3		False				
TRIG 4		False				
TRIG 5		False				
TRIG 6		False				
TRIG 7		False				
TRIG 8		False				
TRIG 9		False				
TRIG 10		False				
TRIG 11		False				
TRIG 12		False				
TRIG 13		False				
TRIG 14		False				
TRIG 15		False				
TRIG 16		False				
Measurements						
PEMMXU1: 1						
P,E(1)						
S-kVA:1		0,0	kVA	-999999,9	999999,9	
P-kW:1		0,0	kW	-999999,9	999999,9	
Q-kVAr:1		0,0	kVAr	-999999,9	999999,9	
PF:1		0,00		-1,00	1,00	
CMMXU1: 1						
3I(1)						
IL1-A:1		0,00	xIn	0,00	40,00	
IL2-A:1		0,00	xIn	0,00	40,00	
IL3-A:1		0,00	xIn	0,00	40,00	
RESCMMXU1: 1						
Io(1)						
Io-A:1		0,00	xIn	0,00	40,00	
RESVMMXU1: 1						

Attachment: “SG-100D1_6,6kV_A6_Incoming Feeder TR-100AD1”

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Uo(1)						
Uo-kV:1		0,00	xUn	0,00	4,00	
VMMXU1: 1						
3U(1)						
U12-kV:1		0,00	xUn	0,00	4,00	
U23-kV:1		0,00	xUn	0,00	4,00	
U31-kV:1		0,00	xUn	0,00	4,00	
UL1-kV:1		0,00	xUn	0,00	5,00	
UL2-kV:1		0,00	xUn	0,00	5,00	
UL3-kV:1		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
U12-kV:2		0,00	xUn	0,00	4,00	
U23-kV:2		0,00	xUn	0,00	4,00	
U31-kV:2		0,00	xUn	0,00	4,00	
UL1-kV:2		0,00	xUn	0,00	5,00	
UL2-kV:2		0,00	xUn	0,00	5,00	
UL3-kV:2		0,00	xUn	0,00	5,00	
FMMXU1: 1						
f(1)						
f-Hz:1		50,00	Hz	35,00	75,00	
CSMSQI1: 1						
I1,I2,I0(1)						
NgSeq-A:1		0,00	xIn	0,00	40,00	
PsSeq-A:1		0,00	xIn	0,00	40,00	
ZrSeq-A:1		0,00	xIn	0,00	40,00	
VSMSQI1: 1						
U1,U2,U0(1)						
NgSeq-kV:1		0,00	xUn	0,00	4,00	
PsSeq-kV:1		0,00	xUn	0,00	4,00	
ZrSeq-kV:1		0,00	xUn	0,00	4,00	
Disturbance records						
Disturbance recorder: 0						
Disturbance recorder						
Number of recordings		0		0	100	
Rem. amount of rec.		0		0	100	
Rec. memory used		0	%	0	100	
Trig recording		Cancel				
Time to trigger		0	s	0	604800	
Configuration						
Disturbance recorder: 0						
Disturbance recorder						
General						
Operation		on				
Record length		50	cycles	10	500	
Pre-trg length		50	%	0	100	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Overwrite				
Exclusion time		0	ms	0	1000000	
Storage rate		32 samples / cycle				
Periodic trig time		0	s	0	604800	
Stor. mode periodic		Waveform				
Stor. mode manual		Waveform				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Operation		on				
Select timeout		30000	ms	10000	300000	
Pulse length		200	ms	10	60000	
Operation counter		0		0	99999	
Control model		sbo-with-enhanced-security				
Adaptive pulse		True				
Event delay		200	ms	0	10000	
Operation timeout		500	ms	10	6000000	
Interlocking Pls Len		2	s	1	10	
Identification		CBXCBR1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
General: 0						
Control						
General						
LR control		Binary input				
Station authority		L,R				
Control mode		On				
DCSXSWI1: 1						
I<->O DC(1)						
Event delay		30000	ms	0	60000	
Identification		DCSXSWI1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
ESSXSWI1: 1						
I<->O ES(1)						
Event delay		30000	ms	0	60000	
Identification		ESSXSWI1 switch position			255 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
System						
Control: 0						
Control						
Rated frequency		50Hz				
Phase rotation		ABC				
Blocking mode		Freeze timer				
Bay name		REX640_A6			20 characters	
IDMT Sat point		50	I/I>	10	50	
Frequency adaptivity		Disable				
SMV Max Delay		3/3 ms				
Test mode selection		Local				
HMI						
EIHMI1: 1						
EIHMI1						
Backlight brightness		100	%	1	100	
Enable USB access		No				
Enable HMI service port		Yes				
Communication						
Ethernet						
Rate Limiter: 1						
Rate Limiter						
Rate limiter						
Rate limit ctrl		False				
RCHLCCH1: 1						
RCHLCCH1						
Redundancy						
Redundant mode		None				
Filter						
Filter mode A_B		Off				
Rate limiter						
GOOSE rate limit A_B		10,000		0,512	90,000	
SMV rate limit A_B		70,000		0,512	90,000	
Def. rate limit A_B		8,000		0,512	90,000	
SCHLCCH1: 1						
SCHLCCH1						
Port modes						
Port mode X1		On				
Filter						
Filter mode X1		Off				
Rate limiter						
GOOSE rate limit X1		10,000		0,512	90,000	
SMV rate limit X1		70,000		0,512	90,000	
Def. rate limit X1		8,000		0,512	90,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SCHLCCH2: 2						
SCHLCCH2						
Port modes						
Port mode X2		On				
Filter						
Filter mode X2		Off				
Rate limiter						
GOOSE rate limit X2		10,000		0,512	90,000	
SMV rate limit X2		70,000		0,512	90,000	
Def. rate limit X2		8,000		0,512	90,000	
SCHLCCH3: 3						
SCHLCCH3						
Port modes						
Port mode X3		On				
Filter						
Filter mode X3		Off				
Rate limiter						
GOOSE rate limit X3		10,000		0,512	90,000	
SMV rate limit X3		70,000		0,512	90,000	
Def. rate limit X3		8,000		0,512	90,000	
Network1: 1						
Network1						
Network1 address						
IP address		192.168.10.9				
Subnet mask		255.255.255.224				
Default gateway		192.168.10.30				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
Network2: 2						
Network2						
Network2 address						
Enable		False				
IP address		192.168.3.10				
Subnet mask		255.255.255.0				
Default gateway		0.0.0.0			16 characters	
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
HMI: 1						
HMI						
HMI address						
IP address		192.168.0.254				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Protocols						
GSELPRT1: 1						
GSE(1)						
GOOSE						
Change det. interval		500	ms	50	1000	
MMSLPRT1: 1						
MMS(1)						
MMS						
Unit mode		Nominal				
Network1						
MMS		On				
HMI port						
MMS		On				
FTPLPRT1: 1						
FTPLPRT1						
Network1						
FTP		Secure				
HMI port						
FTP		Secure				
HTTPLPRT1: 1						
HTTPLPRT1						
Network1						
HTTPS		On				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Network1						
Modbus		On				
MBSLPRT2: 2						
MBSLPRT2						
Modbus (2)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Analog inputs						
Current (3I): 1						
Current (3I)						
Current input type		Current trafo				
Primary current		600,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		False				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Current (Io): 1						
Current (Io)						
Current input type		Current trafo				
Primary current		100,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		False				
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage (3U): 1						
Voltage (3U)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (3UB): 2						
Voltage (3UB)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (Uo): 1						
Voltage (Uo)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Voltage (UoB): 2						
Voltage (UoB)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Measurements						
CMMXU1: 1						
3I(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
A high high limit		1,40	xIn	0,00	40,00	
A high limit		1,20	xIn	0,00	40,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A low limit		0,00	xIn	0,00	40,00	
A low low limit		0,00	xIn	0,00	40,00	
A deadband		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESCMMXU1: 1						
Io(1)						
Operation		on				
Measurement mode		DFT				
A Hi high limit res		0,20	xIn	0,00	40,00	
A high limit res		0,05	xIn	0,00	40,00	
A deadband res		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESVMMXU1: 1						
Uo(1)						
Operation		on				
Measurement mode		DFT				
V Hi high limit res		0,20	xUn	0,00	4,00	
V high limit res		0,05	xUn	0,00	4,00	
V deadband res		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU1: 1						
3U(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		3 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,20	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU2: 2						
3U(2)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		0,90	xUn	0,00	4,00	
V low limit		0,00	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time		0	ms	0	1800000	
FMMXU1: 1						
f(1)						
Operation		on				
F high high limit		60,00	Hz	35,00	75,00	
F high limit		55,00	Hz	35,00	75,00	
F low limit		45,00	Hz	35,00	75,00	
F low low limit		40,00	Hz	35,00	75,00	
F deadband		1000		100	100000	
Def frequency Sel		Nominal				
PEMMXU1: 1						
P,E(1)						
Operation		on				
Power unit Mult		k				
Energy unit Mult		k				
Active power Dir		Forward				
Reactive power Dir		Forward				
Power deadband		10000		1000	10000	
Forward Wh Initial		0		0	999999999	
Reverse Wh Initial		0		0	999999999	
Forward VArh Initial		0		0	999999999	
Reverse VArh Initial		0		0	999999999	
Measurement mode		PhsA, PhsB, PhsC				
Pulse quantity		100000	Wh/VArh	1	10000000	
Pulse on time		1,000	s	0,050	60,000	
Pulse off time		0,500	s	0,050	60,000	
CSMSQI1: 1						
I1,I2,I0(1)						
Operation		on				
Ps Seq A Hi high Lim		1,40	xIn	0,00	40,00	
Ps Seq A high limit		1,20	xIn	0,00	40,00	
Ps Seq A low limit		0,00	xIn	0,00	40,00	
Ps Seq A low low Lim		0,00	xIn	0,00	40,00	
Ps Seq A deadband		2500		100	100000	
Ng Seq A Hi high Lim		0,20	xIn	0,00	40,00	
Ng Seq A High limit		0,05	xIn	0,00	40,00	
Ng Seq A low limit		0,00	xIn	0,00	40,00	
Ng Seq A low low Lim		0,00	xIn	0,00	40,00	
Ng Seq A deadband		2500		100	100000	
Zro A Hi high Lim		0,20	xIn	0,00	40,00	
Zro A High limit		0,05	xIn	0,00	40,00	
Zro A low limit		0,00	xIn	0,00	40,00	
Zro A low low Lim		0,00	xIn	0,00	40,00	
Zro A deadband		2500		100	100000	
Ps Seq A on delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Ps Seq A off delay time		0	ms	0	1800000	
Ng Seq A on delay time		0	ms	0	1800000	
Ng Seq A off delay time		0	ms	0	1800000	
Zro A on delay time		0	ms	0	1800000	
Zro A off delay time		0	ms	0	1800000	
VSMSQI1: 1						
U1,U2,U0(1)						
Operation		on				
Ps Seq V Hi high Lim		1,40	xUn	0,00	4,00	
Ps Seq V high limit		1,20	xUn	0,00	4,00	
Ps Seq V low limit		0,00	xUn	0,00	4,00	
Ps Seq V low low Lim		0,00	xUn	0,00	4,00	
Ps Seq V deadband		10000		100	100000	
Ng Seq V Hi high Lim		0,20	xUn	0,00	4,00	
Ng Seq V High limit		0,05	xUn	0,00	4,00	
Ng Seq V low limit		0,00	xUn	0,00	4,00	
Ng Seq V low low Lim		0,00	xUn	0,00	4,00	
Ng Seq V deadband		10000		100	100000	
Zro V Hi high Lim		0,20	xUn	0,00	4,00	
Zro V High limit		0,05	xUn	0,00	4,00	
Zro V low limit		0,00	xUn	0,00	4,00	
Zro V low low Lim		0,00	xUn	0,00	4,00	
Zro V deadband		10000		100	100000	
Ps Seq V on delay time		0	ms	0	1800000	
Ps Seq V off delay time		0	ms	0	1800000	
Ng Seq V on delay time		0	ms	0	1800000	
Ng Seq V off delay time		0	ms	0	1800000	
Zro V on delay time		0	ms	0	1800000	
Zro V off delay time		0	ms	0	1800000	
Demand metering: 0						
Demand metering						
Demand interval		1 minute				
A demand Av mode		Linear				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Operation		on				
Trip pulse time		250	ms	20	60000	
Trip output mode		Non-latched				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Operation		on				
Acc stop current		10,00	A	5,00	500,00	
Open alarm time		40	ms	0	200	
Close alarm time		40	ms	0	200	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Opening time Cor		10	ms	-100	100	
Closing time Cor		10	ms	-100	100	
Spring charge time		15	s	0	60	
Counter initial Val		0		0	99999	
Alarm Op number		200		0	99999	
Lockout Op number		300		0	99999	
Current exponent		2,00		0,00	5,00	
Difference Cor time		5	ms	-10	10	
Alm Acc currents Pwr		2500,00		0,00	20000,00	
LO Acc currents Pwr		2500,00		0,00	20000,00	
Ini Acc currents Pwr		0,00		0,00	20000,00	
Initial CB Rmn life		5000		0	99999	
Rated Op current		1000,00	A	100,00	6300,00	
Rated fault current		5000,00	A	500,00	99999,00	
Op number rated		10000		1	99999	
Op number fault		1000		1	10000	
Life alarm level		500		0	99999	
Pressure alarm time		10	ms	0	60000	
Pres lockout time		10	ms	0	60000	
Inactive Alm days		2000		0	9999	
Ini inactive days		0		0	9999	
Inactive Alm hours		0	h	0	23	
Travel time Clc mode		From Pos to Pos				
Supervision						
TCSSCBR1: 1						
TCS(1)						
Operation		on				
Operate delay time		3000	ms	1000	300000	
Reset delay time		1000	ms	1000	60000	
CCSPVC1: 1						
MCS 3I(1)						
Operation		on				
Start value		0,05	xIn	0,05	0,50	
Max operate current		1,50	xIn	1,00	5,00	
SEQSPVC1: 1						
FUSEF(1)						
Operation		off				
Neg Seq current Lev		0,03	xIn	0,03	0,20	
Neg Seq voltage Lev		0,10	xUn	0,03	0,20	
Change rate enable		False				
Min Op voltage delta		0,50	xUn	0,01	1,00	
Min Op current delta		0,10	xIn	0,01	1,00	
Enable seal in		False				
Current dead Lin Val		0,05	xIn	0,05	1,00	
Disturbance recorder						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A1RADR: 1						
A1RADR						
Analog channel 1						
Operation		on				
Channel id text		Analog ch 1 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 2						
Operation		on				
Channel id text		Analog ch 2 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 3						
Operation		on				
Channel id text		Analog ch 3 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 4						
Operation		on				
Channel id text		Analog ch 4 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 5						
Operation		on				
Channel id text		Analog ch 5 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 6						
Operation		on				
Channel id text		Analog ch 6 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 7						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 7 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 8						
Operation		on				
Channel id text		Analog ch 8 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 9						
Operation		on				
Channel id text		Analog ch 9 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 10						
Operation		on				
Channel id text		Analog ch 10 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 11						
Operation		on				
Channel id text		Analog ch 11 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 12						
Operation		on				
Channel id text		Analog ch 12 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
A2RADR: 13						
A2RADR						
Analog channel 13						
Operation		on				
Channel id text		Analog ch 13 input			64 characters	
High trigger level		10,00		0,00	60,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 14						
Operation		on				
Channel id text		Analog ch 14 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 15						
Operation		on				
Channel id text		Analog ch 15 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 16						
Operation		on				
Channel id text		Analog ch 16 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 17						
Operation		on				
Channel id text		Analog ch 17 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 18						
Operation		on				
Channel id text		Analog ch 18 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 19						
Operation		on				
Channel id text		Analog ch 19 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 20						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 20 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 21						
Operation		on				
Channel id text		Analog ch 21 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 22						
Operation		on				
Channel id text		Analog ch 22 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 23						
Operation		on				
Channel id text		Analog ch 23 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 24						
Operation		on				
Channel id text		Analog ch 24 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
B1RBDR: 1						
B1RBDR						
Binary channel 1						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 1 input			64 characters	
Binary channel 2						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 2 input			64 characters	
Binary channel 3						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 3 input			64 characters	
Binary channel 4						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 4 input			64 characters	
Binary channel 5						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 5 input			64 characters	
Binary channel 6						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 6 input			64 characters	
Binary channel 7						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 7 input			64 characters	
Binary channel 8						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 8 input			64 characters	
Binary channel 9						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 9 input			64 characters	
Binary channel 10						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 10 input			64 characters	
Binary channel 11						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 11 input			64 characters	
Binary channel 12						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 12 input			64 characters	
Binary channel 13						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 13 input			64 characters	
Binary channel 14						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 14 input			64 characters	
Binary channel 15						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 15 input			64 characters	
Binary channel 16						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 16 input			64 characters	
Binary channel 17						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 17 input			64 characters	
Binary channel 18						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 18 input			64 characters	
Binary channel 19						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 19 input			64 characters	
Binary channel 20						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 20 input			64 characters	
Binary channel 21						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 21 input			64 characters	
Binary channel 22						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 22 input			64 characters	
Binary channel 23						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 23 input			64 characters	
Binary channel 24						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 24 input			64 characters	
Binary channel 25						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 25 input			64 characters	
Binary channel 26						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 26 input			64 characters	
Binary channel 27						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 27 input			64 characters	
Binary channel 28						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 28 input			64 characters	
Binary channel 29						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 29 input			64 characters	
Binary channel 30						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 30 input			64 characters	
Binary channel 31						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 31 input			64 characters	
Binary channel 32						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 32 input			64 characters	
B2RBDR: 33						
B2RBDR						
Binary channel 33						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 33 input			64 characters	
Binary channel 34						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 34 input			64 characters	
Binary channel 35						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 35 input			64 characters	
Binary channel 36						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 36 input			64 characters	
Binary channel 37						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 37 input			64 characters	
Binary channel 38						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 38 input			64 characters	
Binary channel 39						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 39 input			64 characters	
Binary channel 40						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 40 input			64 characters	
Binary channel 41						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 41 input			64 characters	
Binary channel 42						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 42 input			64 characters	
Binary channel 43						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 43 input			64 characters	
Binary channel 44						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 44 input			64 characters	
Binary channel 45						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 45 input			64 characters	
Binary channel 46						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 46 input			64 characters	
Binary channel 47						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 47 input			64 characters	
Binary channel 48						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 48 input			64 characters	
Binary channel 49						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 49 input			64 characters	
Binary channel 50						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 50 input			64 characters	
Binary channel 51						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 51 input			64 characters	
Binary channel 52						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 52 input			64 characters	
Binary channel 53						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 53 input			64 characters	
Binary channel 54						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 54 input			64 characters	
Binary channel 55						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 55 input			64 characters	
Binary channel 56						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 56 input			64 characters	
Binary channel 57						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 57 input			64 characters	
Binary channel 58						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 58 input			64 characters	
Binary channel 59						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 59 input			64 characters	
Binary channel 60						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 60 input			64 characters	
Binary channel 61						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 61 input			64 characters	
Binary channel 62						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 62 input			64 characters	
Binary channel 63						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 63 input			64 characters	
Binary channel 64						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 64 input			64 characters	
Fault record						
FLTRFRC1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
FLTRFRC1						
Operation		on				
Trig mode		From operate				
A measurement mode		DFT				
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Operation		on				
Mem. warning level		0	%	0	100	
Mem. alarm level		0	%	0	100	
Generic timers						
TONGAPC1: 1						
TON(1)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TONGAPC2: 2						
TON(2)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TOFGAPC1: 1						
TOF(1)						
Off delay time 1		1000	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
TOFGAPC2: 2						
TOF(2)						
Off delay time 1		0	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
PTGAPC1: 1						
PT(1)						
Pulse time 1		150	ms	0	3600000	
Pulse time 2		150	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
PTGAPC2: 2						
PT(2)						
Pulse time 1		0	ms	0	3600000	
Pulse time 2		0	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
Generic logic						
SPCGAPC1: 1						
SPC(1)						
General						
Loc Rem restriction		False				
Output 1						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM CLOSE CMD (DIRECT)			64 characters	
Output 2						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM OPEN CMD (DIRECT)			64 characters	
Output 3						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		RESET ALARMS			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 4						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 4			64 characters	
Output 5						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 5			64 characters	
Output 6						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 6			64 characters	
Output 7						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 7			64 characters	
Output 8						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 8			64 characters	
Output 9						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 9			64 characters	
Output 10						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 10			64 characters	
Output 11						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 11			64 characters	
Output 12						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 12			64 characters	
Output 13						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		SPCGAPC1 Output 13			64 characters	
Output 14						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 14			64 characters	
Output 15						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		EMERGENCY			64 characters	
Output 16						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 16			64 characters	
SRGAPC1: 1						
SR(1)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC2: 2						
SR(2)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC3: 3						
SR(3)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MVGAPC1: 1						
MV(1)						
Output 1						
Description		MVGAPC1 Q1			20 characters	
Output 2						
Description		MVGAPC1 Q2			20 characters	
Output 3						
Description		MVGAPC1 Q3			20 characters	
Output 4						
Description		MVGAPC1 Q4			20 characters	
Output 5						
Description		MVGAPC1 Q5			20 characters	
Output 6						
Description		MVGAPC1 Q6			20 characters	
Output 7						
Description		MVGAPC1 Q7			20 characters	
Output 8						
Description		MVGAPC1 Q8			20 characters	
MVGAPC2: 2						
MV(2)						
Output 1						
Description		MVGAPC2 Q1			20 characters	
Output 2						
Description		MVGAPC2 Q2			20 characters	
Output 3						
Description		MVGAPC2 Q3			20 characters	
Output 4						
Description		MVGAPC2 Q4			20 characters	
Output 5						
Description		MVGAPC2 Q5			20 characters	
Output 6						
Description		MVGAPC2 Q6			20 characters	
Output 7						
Description		MVGAPC2 Q7			20 characters	
Output 8						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC2 Q8			20 characters	
MVGAPC3: 3						
MV(3)						
Output 1						
Description		MVGAPC3 Q1			20 characters	
Output 2						
Description		MVGAPC3 Q2			20 characters	
Output 3						
Description		MVGAPC3 Q3			20 characters	
Output 4						
Description		MVGAPC3 Q4			20 characters	
Output 5						
Description		MVGAPC3 Q5			20 characters	
Output 6						
Description		MVGAPC3 Q6			20 characters	
Output 7						
Description		MVGAPC3 Q7			20 characters	
Output 8						
Description		MVGAPC3 Q8			20 characters	
MVGAPC4: 4						
MV(4)						
Output 1						
Description		MVGAPC4 Q1			20 characters	
Output 2						
Description		MVGAPC4 Q2			20 characters	
Output 3						
Description		MVGAPC4 Q3			20 characters	
Output 4						
Description		MVGAPC4 Q4			20 characters	
Output 5						
Description		MVGAPC4 Q5			20 characters	
Output 6						
Description		MVGAPC4 Q6			20 characters	
Output 7						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC4 Q7			20 characters	
Output 8						
Description		MVGAPC4 Q8			20 characters	
General: 0						
General						
Software reset		Cancel				
HMI: 0						
HMI						
FB naming convention		IEC61850				
Backlight timeout		3	min	1	60	
Web HMI mode		On				
HMI timeout		15	min	1	60	
SLD symbol format		IEC				
Setting visibility		Advanced				
User defined name		Disabled				
Time: 0						
Time						
System time						
Time format		24H:MM:SS:MS				
Date format		DD.MM.YYYY				
Date		0			20 characters	
Time		0			20 characters	
Local time offset		0	min	-840	840	
Daylight saving time						
DST in use		True				
DST on time (hours)		2	h	0	23	
DST on time (minutes)		0	min	0	59	
DST on date (day)		1		1	31	
DST on date (month)		May				
DST on day (weekday)		reserved				
DST off time (hours)		2	h	0	23	
DST off time (minutes)		0	min	0	59	
DST off date (day)		25		1	31	
DST off date (month)		September				
DST off day (weekday)		reserved				
DST offset		60	min	-720	720	
SNTP						
IP SNTP primary		192.168.2.166				
IP SNTP secondary		192.168.2.165				
Synchronization						
Synch source		SNTP				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PTP Profile		IEEE C37.238-2011				
PTP domain ID		0		0	255	
PTP priority 1		128		0	255	
PTP priority 2		128		0	255	
PTP Slave-only		False				
Time master mode		Master with finite holdover				
Clear clock list		False				
Time Syn Src Tmm		3	min	1	65535	
Setting group: 0						
Setting group						
SG operation mode		Operator				
Control: 0						
Control						
LHMI						
Close delay mode		Not in use				
Close delay		60	s	5	900	
Breaker operation		After confirmation				
Programmable LEDs: 1						
Programmable LEDs						
General						
Alarm colour		Red				
LED 1						
Alarm mode		Follow-S				
Description		27/59 Voltage Protection			64 characters	
LED 2						
Alarm mode		Follow-S				
Description		Trip Coil Supervision			64 characters	
LED 3						
Alarm mode		Follow-S				
Description		Synchrocheck			64 characters	
LED 4						
Alarm mode		Follow-S				
Description		CB Ready to close			64 characters	
LED 5						
Alarm mode		Follow-S				
Description		50/51 Current Protection			64 characters	
LED 6						
Alarm mode		Follow-S				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		51N/59N Earth Fault Protection			64 characters	
LED 7						
Alarm mode		Follow-S				
Description		Earthing Switch Unlocked			64 characters	
LED 8						
Alarm mode		Follow-S				
Description		CB Truck Unlocked			64 characters	
LED 9						
Alarm mode		Follow-S				
Description		Arc Protection Trip			64 characters	
LED 10						
Alarm mode		Follow-S				
Description		GOOSE Alarm			64 characters	
LED 11						
Alarm mode		Follow-S				
Description		CB Spring			64 characters	
Programmable LEDs: 2						
Programmable LEDs						
LED 12						
Alarm mode		Follow-S				
Description		Space Heater ON			64 characters	
LED 13						
Alarm mode		Follow-S				
Description		Transformer Protections			64 characters	
LED 14						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 15						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 16						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 17						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 18						
Alarm mode		Follow-S				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		-			64 characters	
LED 19						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 20						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 21						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 22						
Alarm mode		Follow-S				
Description		-			64 characters	
I/O modules: 0						
I/O modules						
Common settings						
Slot specific threshold		False				
Slot specific hysteresis		False				
Input threshold voltage		16	Vdc	16	176	
Input threshold hysteresis		10	%	10	50	
Input osc. level		30	events/s	2	50	
Input osc. hyst		10	events/s	2	50	
User Activity log: 0						
User Activity log						
Server Settings 1						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address		192.168.2.5				
Server Settings 2						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address2		192.168.2.6				
Authorization: 1						
Authorization						
Security						
Remote Update		Disable				
Passwords						
Remote override		True				
Local override		True				
CAM						
Clear AD userlist		False				
Network1						
FTP write access		On				
MMS write access		On				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
HTTPS write access		On				
HMI						
FTP write access		On				
MMS write access		On				
Monitoring						
Communication						
Ethernet						
RCHLCCH1: 1						
RCHLCCH1						
Activity						
CHLIV_A		False				
REDCHLIV_B		False				
Link statuses						
LNKLIV_A		False				
REDLNKLIV_B		False				
Diagnostics						
A_B						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH1: 1						
SCHLCCH1						
Activity						
CH1LIV		False				
Link statuses						
LNK1LIV		False				
Diagnostics						
X1						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH2: 2						
SCHLCCH2						
Activity						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
CH2LIV		False				
Link statuses						
LNK2LIV		False				
Diagnostics						
X2						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH3: 3						
SCHLCCH3						
Activity						
CH3LIV		False				
Link statuses						
LNK3LIV		False				
Diagnostics						
X3						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
HMILCCH1: 1						
HMILCCH1						
Activity						
HMICHLIV		False				
Link statuses						
HMILNKLIV		Down				
SCHLCCH6: 6						
SCHLCCH6						
Activity						
CH6LIV		False				
Link statuses						
LNK6LIV		False				
Diagnostics						
X6						
Temperature		0,0	°C	-128,0	128,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage		0,000	V	0,000	6,550	
Bias current		0,0	mA	0,0	131,0	
TX power		0,000	mW	0,000	6,550	
RX power		0,000	mW	0,000	6,550	
XCVR detected		False				
RX power alarm		False				
TX power alarm		False				
Voltage alarm		False				
Temperature alarm		False				
Part name		0			20 characters	
Protocols						
MMSLPRT1: 1						
MMS(1)						
CHLIV		False				
Successful conn.		0		0	10000000	
Failed conn.		0		0	10000000	
Concludes		0		0	10000000	
Sent aborts		0		0	10000000	
Recv. aborts		0		0	10000000	
Sent rejects		0		0	10000000	
Recv. requests		0		0	10000000	
Failed requests		0		0	10000000	
Reads		0		0	10000000	
Failed reads		0		0	10000000	
Writes		0		0	10000000	
Failed writes		0		0	10000000	
Reports		0		0	10000000	
Active conn.		0		0	10000000	
Reset counters		False				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT2: 2						
MBSLPRT2						
Modbus (2)						
STATUS		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Rec. memory used		0	%	0	100	
MEM_WARN		False				
MEM_ALARM		False				
I/O status						
Binary input values						
Slot B (BIO): 1						
Slot B (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot C (BIO): 1						
Slot C (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot D (BIO): 1						
Slot D (BIO)						
Input 1		False				
Input 2		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
TCS Input 1		False				
TCS Input 2		False				
Binary output values						
Slot B (BIO): 1						
Slot B (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot C (BIO): 1						
Slot C (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot D (BIO): 1						
Slot D (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot G (PSM): 1						
Slot G (PSM)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Output 9		False				
Output 10		False				
Analog inputs						
Current (3I): 1						
Current (3I)						
ALARM		False				
WARNING		False				
Current (Io): 1						
Current (Io)						
ALARM		False				
WARNING		False				
Voltage (Uo): 1						
Voltage (Uo)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (UoB): 2						
Voltage (UoB)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (3U): 1						
Voltage (3U)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Voltage (3UB): 2						
Voltage (3UB)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Measurements						
CMMXU1: 1						
3I(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
LOW_ALARM		False				
Monitored data						
I_INST_A		0,00	xIn	0,00	40,00	
I_ANGL_A		0,00	deg	-180,00	180,00	
I_DB_A		0,00	xIn	0,00	40,00	
I_DMD_A		0,00	xIn	0,00	40,00	
I_RANGE_A		normal				
I_INST_B		0,00	xIn	0,00	40,00	
I_ANGL_B		0,00	deg	-180,00	180,00	
I_DB_B		0,00	xIn	0,00	40,00	
I_DMD_B		0,00	xIn	0,00	40,00	
I_RANGE_B		normal				
I_INST_C		0,00	xIn	0,00	40,00	
I_ANGL_C		0,00	deg	-180,00	180,00	
I_DB_C		0,00	xIn	0,00	40,00	
I_DMD_C		0,00	xIn	0,00	40,00	
I_RANGE_C		normal				
RESCMMXU1: 1						
Io(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
I_INST_RES		0,00	xIn	0,00	40,00	
I_ANGL_RES		0,00	deg	-180,00	180,00	
I_DB_RES		0,00	xIn	0,00	40,00	
I_DMD_RES		0,00	xIn	0,00	40,00	
I_RANGE_RES		normal				
RESVMMXU1: 1						
Uo(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
U_INST_RES		0,00	xUn	0,00	4,00	
U_ANGL_RES		0,00	deg	-180,00	180,00	
U_DB_RES		0,00	xUn	0,00	4,00	
U_DMD_RES		0,00	xUn	0,00	4,00	
U_RANGE_RES		normal				
VMMXU1: 1						
3U(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
CSMSQI1: 1						
I1,I2,I0(1)						
Outputs						
I2_HIGH_AL		False				
I2_HIGH_WARN		False				
I1_HIGH_AL		False				
I1_HIGH_WARN		False				
I1_LOW_WARN		False				
I1_LOW_AL		False				
I0_HIGH_AL		False				
I0_HIGH_WARN		False				
Monitored data						
I2_INST		0,00	xIn	0,00	40,00	
I2_ANGL		0,00	deg	-180,00	180,00	
I2_DB		0,00	xIn	0,00	40,00	
I2_RANGE		normal				
I1_INST		0,00	xIn	0,00	40,00	
I1_ANGL		0,00	deg	-180,00	180,00	
I1_DB		0,00	xIn	0,00	40,00	
I1_RANGE		normal				
I0_INST		0,00	xIn	0,00	40,00	
I0_ANGL		0,00	deg	-180,00	180,00	
I0_DB		0,00	xIn	0,00	40,00	
I0_RANGE		normal				
VSMSQI1: 1						
U1,U2,U0(1)						
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U2_HIGH_AL		False				
U2_HIGH_WARN		False				
U1_HIGH_AL		False				
U1_HIGH_WARN		False				
U1_LOW_WARN		False				
U1_LOW_AL		False				
U0_HIGH_AL		False				
U0_HIGH_WARN		False				
Monitored data						
U2_INST		0,00	xUn	0,00	4,00	
U2_ANGL		0,00	deg	-180,00	180,00	
U2_DB		0,00	xUn	0,00	4,00	
U2_RANGE		normal				
U1_INST		0,00	xUn	0,00	4,00	
U1_ANGL		0,00	deg	-180,00	180,00	
U1_DB		0,00	xUn	0,00	4,00	
U1_RANGE		normal				
U0_INST		0,00	xUn	0,00	4,00	
U0_ANGL		0,00	deg	-180,00	180,00	
U0_DB		0,00	xUn	0,00	4,00	
U0_RANGE		normal				
PEMMXU1: 1						
P,E(1)						
Inputs						
RSTACM		False				
Monitored data						
S_INST		0,0	kVA	-999999,9	999999,9	
S_DB		0,0	kVA	-999999,9	999999,9	
S_DMD		0,0	kVA	-999999,9	999999,9	
P_INST		0,0	kW	-999999,9	999999,9	
P_DB		0,0	kW	-999999,9	999999,9	
P_DMD		0,0	kW	-999999,9	999999,9	
Q_INST		0,0	kVAr	-999999,9	999999,9	
Q_DB		0,0	kVAr	-999999,9	999999,9	
Q_DMD		0,0	kVAr	-999999,9	999999,9	
PF_INST		0,00		-1,00	1,00	
PF_DB		0,00		-1,00	1,00	
PF_DMD		0,00		-1,00	1,00	
EA_RV_ACM		0	kWh	0	999999999	
ER_RV_ACM		0	kVArh	0	999999999	
EA_FWD_ACM		0	kWh	0	999999999	
ER_FWD_ACM		0	kVArh	0	999999999	
FMMXU1: 1						
f(1)						
Monitored data						
F_INST		50,00	Hz	35,00	75,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
F_DB		50,00	Hz	35,00	75,00	
F_RANGE		normal				
Generic logic						
SPCGAPC1: 1						
SPC(1)						
Inputs						
BLOCK		False				
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
IN9		False				
IN10		False				
IN11		False				
IN12		False				
IN13		False				
IN14		False				
IN15		False				
IN16		False				
Outputs						
O1		False				
O2		False				
O3		False				
O4		False				
O5		False				
O6		False				
O7		False				
O8		False				
O9		False				
O10		False				
O11		False				
O12		False				
O13		False				
O14		False				
O15		False				
O16		False				
SRGAPC1: 1						
SR(1)						
Inputs						
S1		False				
R1		False				
S2		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC2: 2						
SR(2)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC3: 3						
SR(3)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC1: 1						
MV(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC2: 2						
MV(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC3: 3						
MV(3)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MVGAPC4: 4						
MV(4)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Inputs						
ENA_OPEN		True				
ENA_CLOSE		True				
BLK_OPEN		False				
BLK_CLOSE		False				
SYNC_OK		True				
SYNC_BYPASS		False				
ITL_BYPASS		False				
Outputs						
SELECTED		False				
EXE_OP		False				
EXE_CL		False				
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
OPEN_ENAD		False				
CLOSE_ENAD		False				
CTL_ITL_BLKD		False				
Monitored data						
POSITION		intermediate				
DCSXSWI1: 1						
I<->O DC(1)						
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
ESSXSWI1: 1						
I<->O ES(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
25; SECRSYN1: 1						
SYNC(1)						
Inputs						
BLOCK		False				
CL_COMMAND		False				
BYPASS		False				
Outputs						
SYNC_INPRO		False				
SYNC_OK		False				
CL_FAIL_AL		False				
CMD_FAIL_AL		False				
LLDB		False				
LLLB		False				
DLLB		False				
DLDB		False				
Monitored data						
ENERG_STATE		Unknown				
U_DIFF_MEAS		0,00	xUn	-3,00	3,00	
FR_DIFF_MEAS		0,000	xFn	-1,500	1,500	
PH_DIFF_MEAS		0,00	deg	-180,00	180,00	
U_DIFF_SYNC		False				
PH_DIF_SYNC		False				
FR_DIFF_SYNC		False				
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
START_DUR		0,00	%	0,00	100,00	
51-1; PHLPTOC1: 1						
3I>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
68; INRPHAR1: 1						
3I2f>(1)						
Inputs						
BLOCK		False				
Outputs						
BLK2H		False				
51N; EFLPTOC1: 1						
Io>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Voltage protection						
59N-1; ROVPTOV1: 1						
Uo>(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
59-1; PHPTOV1: 1						
3U>(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59-2; PHPTOV2: 2						
3U>(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-1; PHPTUV1: 1						
3U<(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-2; PHPTUV2: 2						
3U<(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Inputs						
BLOCK		False				
START		False				
POSCLOSE		False				
CB_FAULT		False				
Outputs						
CB_FAULT_AL		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
TRBU		False				
TRRET		False				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CB; ARCSARC2: 21						
ARC(2)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Inputs						
BLOCK		False				
OPERATE		False				
RST_LKOUT		False				
Outputs						
TRIP		False				
CL_LKOUT		False				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
BLOCK		False				
POSOPEN		False				
POSCLOSE		False				
OPEN_CB_EXE		False				
CLOSE_CB_EXE		False				
PRES_ALM_IN		False				
PRES_LO_IN		False				
RST_IPOW		False				
RST_CB_WEAR		False				
RST_TRV_T		False				
RST_SPR_T		False				
Outputs						
TRV_T_OP_ALM		False				
TRV_T_CL_ALM		False				
SPR_CHR_ALM		False				
OPR_ALM		False				
OPR_LO		False				
IPOW_ALM		False				
IPOW_LO		False				
CB_LIFE_ALM		False				
MON_ALM		False				
PRES_ALM		False				
PRES_LO		False				
OPENPOS		False				
INVALIDPOS		False				
CLOSEPOS		False				
Monitored data						
T_TRV_OP		0	ms	0	60000	
T_TRV_CL		0	ms	0	60000	
T_SPR_CHR		0,00	s	0,00	99,99	
NO_OPR		0		0	99999	
INA_DAYS		0		0	9999	
CB_LIFE_A		0		-99999	99999	
CB_LIFE_B		0		-99999	99999	
CB_LIFE_C		0		-99999	99999	
IPOW_A		0,000		0,000	30000,000	
IPOW_B		0,000		0,000	30000,000	
IPOW_C		0,000		0,000	30000,000	
Supervision						
TCSSCBR1: 1						
TCS(1)						
Inputs						
BLOCK		False				
Outputs						
ALARM		False				
CCSPVC1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MCS 3I(1)						
Inputs						
BLOCK		False				
Outputs						
FAIL		False				
ALARM		False				
Monitored data						
IDIFF		0,00	xIn	0,00	40,00	
SEQSPVC1: 1						
FUSEF(1)						
Inputs						
BLOCK		False				
CB_CLOSED		False				
DISCON_OPEN		False				
MINCB_OPEN		False				
Outputs						
FUSEF_3PH		False				
FUSEF_U		False				
Communication						
GSELPRT1: 1						
GSE(1)						
Outputs						
ALARM		False				
Monitoring						
Reset counters		False				
Received msgs		0		0	10000000	
Transmitted msgs		0		0	10000000	
State changes		0		0	10000000	
SeqNum changes		0		0	10000000	
Test msgs		0		0	10000000	
State warnings		0		0	10000000	
Seq. warnings		0		0	10000000	
Recv. timeouts		0		0	10000000	
ConfRev errors		0		0	10000000	
NdsComm errors		0		0	10000000	
Dataset errors		0		0	10000000	
Replay Prot warnings		0		0	10000000	
Generic timers						
TONGAPC1: 1						
TON(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TONGAPC2: 2						
TON(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TOFGAPC1: 1						
TOF(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TOFGAPC2: 2						
TOF(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC1: 1						
PT(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC2: 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PT(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
FB status						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Current protection						
3I>>>(1)		on				
51-1; PHLPTOC1: 1						
3I>(1)						
Current protection						
3I>(1)		on				
68; INRPHAR1: 1						
3I2f>(1)						
Current protection						
3I2f>(1)		on				
51N; EFLPTOC1: 1						
Io>(1)						
Current protection						
Io>(1)		on				
59-1; PHPTOV1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
3U>(1)						
Voltage protection						
3U>(1)		on				
59-2; PHPTOV2: 2						
3U>(2)						
Voltage protection						
3U>(2)		on				
27-1; PHPTUV1: 1						
3U<(1)						
Voltage protection						
3U<(1)		on				
27-2; PHPTUV2: 2						
3U<(2)						
Voltage protection						
3U<(2)		on				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Voltage protection						
Uo>(1)		on				
59N-2; ROVPTOV2: 2						
Uo>(2)						
Voltage protection						
Uo>(2)		on				
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Other protection						
3I>/Io>BF(1)		on				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Other protection						
ARC(1)		on				
ARC CB; ARCSARC2: 21						
ARC(2)						
Other protection						
ARC(2)		on				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Other protection						
ARC(3)		on				
25; SECRSYN1: 1						
SYNC(1)						
Control						
SYNC(1)		on				
TRPPTRC1: 1						
Master Trip(1)						
Trip logic						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Master Trip(1)		on				
SSCBR1: 1						
CBCM(1)						
Condition monitoring						
CBCM(1)		on				
TCSSCBR1: 1						
TCS(1)						
Supervision						
TCS(1)		on				
CCSPVC1: 1						
MCS 3I(1)						
Supervision						
MCS 3I(1)		on				
SEQSPVC1: 1						
FUSEF(1)						
Supervision						
FUSEF(1)		on				
Recorded data						
Measurements						
CMMXU1: 1						
3I(1)						
Max demand IL1		0,00	xIn	0,00	40,00	
Max demand IL2		0,00	xIn	0,00	40,00	
Max demand IL3		0,00	xIn	0,00	40,00	
Min demand IL1		0,00	xIn	0,00	40,00	
Min demand IL2		0,00	xIn	0,00	40,00	
Min demand IL3		0,00	xIn	0,00	40,00	
Time max demand IL1		0			34 characters	
Time max demand IL2		0			34 characters	
Time max demand IL3		0			34 characters	
Time min demand IL1		0			34 characters	
Time min demand IL2		0			34 characters	
Time min demand IL3		0			34 characters	
RESCMMXU1: 1						
Io(1)						
Max demand Io		0,00	xIn	0,00	40,00	
Min demand Io		0,00	xIn	0,00	40,00	
Time max demand Io		0			34 characters	
Time min demand Io		0			34 characters	
PEMMXU1: 1						
P,E(1)						
Max demand S		0,0	kVA	-999999,9	999999,9	
Min demand S		0,0	kVA	-999999,9	999999,9	
Max demand P		0,0	kW	-999999,9	999999,9	
Min demand P		0,0	kW	-999999,9	999999,9	
Max demand Q		0,0	kVAr	-999999,9	999999,9	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Min demand Q		0,0	kVAr	-999999,9	999999,9	
Time max dmd S		0			34 characters	
Time min dmd S		0			34 characters	
Time max dmd P		0			34 characters	
Time min dmd P		0			34 characters	
Time max dmd Q		0			34 characters	
Time min dmd Q		0			34 characters	
FLTRFRC1: 1						
FLTRFRC1						
Fault record						
Fault number		0		0	999999	
Time and date		0			34 characters	
Protection (rec. set 1)		None				
Protection (rec. set 2)		None				
Start duration		0,00	%	0,00	100,00	
Operate time		0,000	s	0,000	999999,999	
Breaker clear time		0,000	s	0,000	3,000	
Fault distance		0,00	pu	0,00	3000,00	
Fault resistance		0,00	ohm	0,00	3000,00	
Fault reactance		0,00	ohm	0,00	3000,00	
Active group		1		1	6	
Shot pointer		1		1	7	
Max diff current IL1:1		0,000	pu	0,000	80,000	
Max diff current IL2:1		0,000	pu	0,000	80,000	
Max diff current IL3:1		0,000	pu	0,000	80,000	
Diff current IL1:1		0,000	pu	0,000	80,000	
Diff current IL2:1		0,000	pu	0,000	80,000	
Diff current IL3:1		0,000	pu	0,000	80,000	
Max bias current IL1:1		0,000	pu	0,000	50,000	
Max bias current IL2:1		0,000	pu	0,000	50,000	
Max bias current IL3:1		0,000	pu	0,000	50,000	
Bias current IL1:1		0,000	pu	0,000	50,000	
Bias current IL2:1		0,000	pu	0,000	50,000	
Bias current IL3:1		0,000	pu	0,000	50,000	
Diff current Io:1		0,000	pu	0,000	80,000	
Bias current Io:1		0,000	pu	0,000	50,000	
Max current IL1:1		0,000	xIn	0,000	50,000	
Max current IL2:1		0,000	xIn	0,000	50,000	
Max current IL3:1		0,000	xIn	0,000	50,000	
Max current Io:1		0,000	xIn	0,000	50,000	
Current IL1:1		0,000	xIn	0,000	50,000	
Current IL2:1		0,000	xIn	0,000	50,000	
Current IL3:1		0,000	xIn	0,000	50,000	
Current Io:1		0,000	xIn	0,000	50,000	
Current Io-Calc:1		0,000	xIn	0,000	50,000	
Current Ps-Seq:1		0,000	xIn	0,000	50,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Current Ng-Seq:1		0,000	xIn	0,000	50,000	
Max current IL1:2		0,000	xIn	0,000	50,000	
Max current IL2:2		0,000	xIn	0,000	50,000	
Max current IL3:2		0,000	xIn	0,000	50,000	
Max current Io:2		0,000	xIn	0,000	50,000	
Current IL1:2		0,000	xIn	0,000	50,000	
Current IL2:2		0,000	xIn	0,000	50,000	
Current IL3:2		0,000	xIn	0,000	50,000	
Current Io:2		0,000	xIn	0,000	50,000	
Current Io-Calc:2		0,000	xIn	0,000	50,000	
Current Ps-Seq:2		0,000	xIn	0,000	50,000	
Current Ng-Seq:2		0,000	xIn	0,000	50,000	
Max current IL1:3		0,000	xIn	0,000	50,000	
Max current IL2:3		0,000	xIn	0,000	50,000	
Max current IL3:3		0,000	xIn	0,000	50,000	
Max current Io:3		0,000	xIn	0,000	50,000	
Current IL1:3		0,000	xIn	0,000	50,000	
Current IL2:3		0,000	xIn	0,000	50,000	
Current IL3:3		0,000	xIn	0,000	50,000	
Current Io:3		0,000	xIn	0,000	50,000	
Current Io-Calc:3		0,000	xIn	0,000	50,000	
Current Ps-Seq:3		0,000	xIn	0,000	50,000	
Current Ng-Seq:3		0,000	xIn	0,000	50,000	
Voltage UL1:1		0,000	xUn	0,000	4,000	
Voltage UL2:1		0,000	xUn	0,000	4,000	
Voltage UL3:1		0,000	xUn	0,000	4,000	
Voltage U12:1		0,000	xUn	0,000	4,000	
Voltage U23:1		0,000	xUn	0,000	4,000	
Voltage U31:1		0,000	xUn	0,000	4,000	
Voltage Uo:1		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:1		0,000	xUn	0,000	4,000	
Voltage UL1:2		0,000	xUn	0,000	4,000	
Voltage UL2:2		0,000	xUn	0,000	4,000	
Voltage UL3:2		0,000	xUn	0,000	4,000	
Voltage U12:2		0,000	xUn	0,000	4,000	
Voltage U23:2		0,000	xUn	0,000	4,000	
Voltage U31:2		0,000	xUn	0,000	4,000	
Voltage Uo:2		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:2		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:2		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:2		0,000	xUn	0,000	4,000	
Voltage UL1:3		0,000	xUn	0,000	4,000	
Voltage UL2:3		0,000	xUn	0,000	4,000	
Voltage UL3:3		0,000	xUn	0,000	4,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage UL12:3		0,000	xUn	0,000	4,000	
Voltage UL23:3		0,000	xUn	0,000	4,000	
Voltage UL31:3		0,000	xUn	0,000	4,000	
Voltage Uo:3		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:3		0,000	xUn	0,000	4,000	
PTTR thermal level		0,00		0,00	99,99	
I2/I1>(1) rat. I2/I1		0,00	%	0,00	999,99	
Frequency:1		50,00	Hz	0,00	80,00	
Frequency gradient:1		0,00	Hz/s	-10,00	10,00	
Frequency:2		50,00	Hz	0,00	80,00	
Frequency gradient:2		0,00	Hz/s	-10,00	10,00	
Frequency:3		50,00	Hz	0,00	80,00	
Frequency gradient:3		0,00	Hz/s	-10,00	10,00	
Conductance Yo		0,00	mS	-1000,00	1000,00	
Susceptance Yo		0,00	mS	-1000,00	1000,00	
Angle Uo:1 - Io:1		0,00	deg	-180,00	180,00	
Angle U23:1- IL1:1		0,00	deg	-180,00	180,00	
Angle U31:1 - IL2:1		0,00	deg	-180,00	180,00	
Angle U12:1 - IL3:1		0,00	deg	-180,00	180,00	
Angle Uo:2 - Io:2		0,00	deg	-180,00	180,00	
Angle U23:2 - IL1:2		0,00	deg	-180,00	180,00	
Angle U31:2 - IL2:2		0,00	deg	-180,00	180,00	
Angle U12:2 - IL3:2		0,00	deg	-180,00	180,00	
Angle Uo:3 - Io:3		0,00	deg	-180,00	180,00	
Angle U23:3 - IL1:3		0,00	deg	-180,00	180,00	
Angle U31:3 - IL2:3		0,00	deg	-180,00	180,00	
Angle U12:3 - IL3:3		0,00	deg	-180,00	180,00	
Control command						
Control: 0						
Control						
LR state		Remote				
Detached LHMI						
EIHMI1: 1						
EIHMI1						
CONNECTION		False				
Service port IP address		0			20 characters	
Main unit port IP address		0			20 characters	
Setting group: 0						
Setting group						
Outputs						
SG_LOGIC_SEL		False				
SG_1_ACT		False				
SG_2_ACT		False				
SG_3_ACT		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SG_4_ACT		False				
SG_5_ACT		False				
SG_6_ACT		False				
Programmable LEDs: 1						
Programmable LEDs						
Inputs						
LED 1						
OK		False				
ALARM		False				
RESET		False				
LED 2						
OK		False				
ALARM		False				
RESET		False				
LED 3						
OK		False				
ALARM		False				
RESET		False				
LED 4						
OK		False				
ALARM		False				
RESET		False				
LED 5						
OK		False				
ALARM		False				
RESET		False				
LED 6						
OK		False				
ALARM		False				
RESET		False				
LED 7						
OK		False				
ALARM		False				
RESET		False				
LED 8						
OK		False				
ALARM		False				
RESET		False				
LED 9						
OK		False				
ALARM		False				
RESET		False				
LED 10						
OK		False				
ALARM		False				
RESET		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
LED 11						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 1		None				
Programmable LED 2		None				
Programmable LED 3		None				
Programmable LED 4		None				
Programmable LED 5		None				
Programmable LED 6		None				
Programmable LED 7		None				
Programmable LED 8		None				
Programmable LED 9		None				
Programmable LED 10		None				
Programmable LED 11		None				
Programmable LEDs: 2						
Programmable LEDs						
Inputs						
LED 12						
OK		False				
ALARM		False				
RESET		False				
LED 13						
OK		False				
ALARM		False				
RESET		False				
LED 14						
OK		False				
ALARM		False				
RESET		False				
LED 15						
OK		False				
ALARM		False				
RESET		False				
LED 16						
OK		False				
ALARM		False				
RESET		False				
LED 17						
OK		False				
ALARM		False				
RESET		False				
LED 18						
OK		False				
ALARM		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
RESET		False				
LED 19						
OK		False				
ALARM		False				
RESET		False				
LED 20						
OK		False				
ALARM		False				
RESET		False				
LED 21						
OK		False				
ALARM		False				
RESET		False				
LED 22						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 12		None				
Programmable LED 13		None				
Programmable LED 14		None				
Programmable LED 15		None				
Programmable LED 16		None				
Programmable LED 17		None				
Programmable LED 18		None				
Programmable LED 19		None				
Programmable LED 20		None				
Programmable LED 21		None				
Programmable LED 22		None				
IED status: 1						
IED status						
CAM						
UAM mode		Local				
CAM server1		Offline				
CAM server2		Offline				
Replication		N.A.				
Last update		0			34 characters	
PKI						
CA Server Status		Offline				
Time synchronization						
PTP P2P delay X1		0	ns	-2147483648	2147483647	
PTP P2P delay X2		0	ns	-2147483648	2147483647	
PTP P2P delay X3		0	ns	-2147483648	2147483647	
Self-supervision						
Warning		All ok				
Internal Fault		All ok				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Boot up time		0			34 characters	
Boot up reason		None				
Device state		on				
Composition changes						
No of comp. changes		0		0	100000	
Setting changes						
Setting changes		0		0	20000	
Setting time		0			34 characters	
SMV accuracy						
SMV Synch accuracy		InternalClock				
Local synch accuracy		0	us	0	1000000000	
Max Dev synch Acc		0	us	0	1000000000	
Information						
HW modules						
Slot B (BIO): 1						
Slot B (BIO)						
Article number		2RCA034506A0001			20 characters	
SW version		0x105			20 characters	
HW revision		G			20 characters	
Serial number		1VH341254400			20 characters	
Manufacturing date		17.4.2024 00:00:00.000			34 characters	
Test date		17.4.2024 00:00:00.000			34 characters	
Slot C (BIO): 1						
Slot C (BIO)						
Article number		2RCA034506A0001			20 characters	
SW version		0x105			20 characters	
HW revision		G			20 characters	
Serial number		1VH341254641			20 characters	
Manufacturing date		16.4.2024 00:00:00.000			34 characters	
Test date		16.4.2024 00:00:00.000			34 characters	
Slot D (BIO): 1						
Slot D (BIO)						
Article number		2RCA034536A0001			20 characters	
SW version		0x105			20 characters	
HW revision		F			20 characters	
Serial number		1VH341253320			20 characters	
Manufacturing date		26.4.2024 00:00:00.000			34 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Test date		26.4.2024 00:00:00.000			34 characters	
Slot E (AIM): 1						
Slot E (AIM)						
Article number		2RCA034442 A0001			20 characters	
SW version		0x104			20 characters	
HW revision		H			20 characters	
Serial number		1VH341244340			20 characters	
Manufacturing date		9.2.2024 00:00:00.000			34 characters	
Test date		9.2.2024 00:00:00.000			34 characters	
Slot F (AIM): 1						
Slot F (AIM)						
Article number		2RCA034442 A0001			20 characters	
SW version		0x104			20 characters	
HW revision		H			20 characters	
Serial number		1VH341244339			20 characters	
Manufacturing date		9.2.2024 00:00:00.000			34 characters	
Test date		9.2.2024 00:00:00.000			34 characters	
Slot G (PSM): 1						
Slot G (PSM)						
Article number		2RCA034470 A0001			20 characters	
SW version		0x101			20 characters	
HW revision		H			20 characters	
Serial number		1VH341219364			20 characters	
Manufacturing date		3.10.2023 00:00:00.000			34 characters	
Test date		3.10.2023 00:00:00.000			34 characters	
EIHMI1: 1						
EIHMI1						
Detached LHMI						
Article number		2RCA033008 A0001			20 characters	
Application version		22-12-12-18:25			20 characters	
Firmware version		20230131222023			20 characters	
HW revision		V			20 characters	
Serial number		1VHR51024461			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Manufacturing date		16.5.2024 01:00:00.000			34 characters	
Test date		16.5.2024 01:00:00.000			34 characters	
Service port MAC address		00:21:C1:34:82:99			20 characters	
Main unit port MAC address		00:21:C1:34:82:9A			20 characters	
Slot A1 (ARC): 1						
Slot A1 (ARC)						
Article number		2RCA032261A0001			20 characters	
SW version		0x107			20 characters	
HW revision		G			20 characters	
Serial number		1VH341251259			20 characters	
Manufacturing date		28.3.2024 00:00:00.000			34 characters	
Test date		28.3.2024 00:00:00.000			34 characters	
Slot A2 (COM): 1						
Slot A2 (COM)						
Article number		2RCA034478A0001			20 characters	
SW version		0x11D			20 characters	
HW revision		L			20 characters	
Serial number		1VH341254247			20 characters	
Manufacturing date		16.4.2024 00:00:00.000			34 characters	
Test date		16.4.2024 00:00:00.000			34 characters	
Product identifiers: 0						
Product identifiers						
Type		REX640			20 characters	
Product version		1			64 characters	
Serial number		1VHR81041859			20 characters	
Production date		10.5.2024 01:00:00.000			34 characters	
SW version		1.3.3			20 characters	
SW date		11.3.2024 13:07:00.000			34 characters	
SW number		2RCA057448D			20 characters	
Interface level		0			64 characters	
Order code		REX640_1AC2			20 characters	
Site identifiers: 0						
Site identifiers						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Customer name		0			20 characters	
Street		0			20 characters	
House number		0			20 characters	
ZIP/Postal code		0			20 characters	
City/Province		0			20 characters	
State		0			20 characters	
Country		0			20 characters	
System identifiers: 0						
System identifiers						
Technical key		AA1L1Q06A1			20 characters	
IEC 61850 version		Edition 2.1			24 characters	
Engineering model		ABB				
HW modules: 0						
HW modules						
Main board						
Article number		2RCA036414A0001			20 characters	
SW version		0x5402			20 characters	
HW revision		J			20 characters	
Serial number		1VH341253728			20 characters	
Manufacturing date		12.4.2024 00:00:00.000			34 characters	
Test date		12.4.2024 00:00:00.000			34 characters	
Clear						
Disturbance recorder: 0						
Disturbance recorder						
Disturbance records		Cancel				
Clear: 0						
Clear						
Indications and LEDs		Cancel				
Programmable LEDs		Cancel				
Events		Cancel				
Metering records		Cancel				
Power quality data		Cancel				
FLTRFRC1: 1						
FLTRFRC1						
Fault records		Cancel				
LDPRLRC1: 1						
LDPRLRC1						
Load Profile record		Cancel				
TRPPTRC1: 1						
Master Trip(1)						
Master Trip(1)		Cancel				
SSCBR1: 1						
CBCM(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
CBCM(1) acc.energy		Cancel				
CBCM(1) rem.life		Cancel				
CBCM(1) travel times		Cancel				
CBCM(1) spr.charge t		Cancel				
PEMMXU1: 1						
P,E(1)						
P,E(1) acc.energy		Cancel				
Application Configuration						
General						
Settings						
Setting group						
Protection: 0						
Setting group						
Active group		1		1	6	
Protection						
Settings						
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		5,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		550	ms	20	300000	
settingGroup 2						
Start value		5,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		550	ms	20	300000	
settingGroup 3						
Start value		5,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		550	ms	20	300000	
settingGroup 4						
Start value		5,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		550	ms	20	300000	
settingGroup 5						
Start value		5,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		550	ms	20	300000	
settingGroup 6						
Start value		5,20	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		550	ms	20	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
51-1; PHLPTOC1: 1						
3I>(1)						
Operation		on				
Num of start phases		1 out of 3				
Minimum operate time		550	ms	20	60000	
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	50000,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	6,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,98	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 2						
Start value		0,98	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 3						
Start value		0,98	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 4						
Start value		0,98	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 5						
Start value		0,98	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
settingGroup 6						
Start value		0,98	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,300		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
68; INRPHAR1: 1						
3I2f>(1)						
Operation		off				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 2						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 3						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 4						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 5						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 6						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
51N; EFLPTOC1: 1						
Io>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,150	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		300	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,150	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		300	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,150	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		300	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,150	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		300	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,150	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		300	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,150	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		300	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC Def. Time				
Voltage protection						
59-1; PHPTOV1: 1						
3U>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		750	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		750	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		750	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		750	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		750	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		750	ms	40	300000	
Operating curve type		IEC Def. Time				
59-2; PHPTOV2: 2						
3U>(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		250	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		250	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		250	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		250	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		250	ms	40	300000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		250	ms	40	300000	
Operating curve type		IEC Def. Time				
27-1; PHPTUV1: 1						
3U<(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage block value		0,20	xUn	0,05	1,00	
Enable block value		True				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2500	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2500	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2500	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2500	ms	20	300000	
Operating curve type		IEC Def. Time				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
settingGroup 5						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2500	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2500	ms	20	300000	
Operating curve type		IEC Def. Time				
27-2; PHPTUV2: 2						
3U<(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage block value		0,20	xUn	0,05	1,00	
Enable block value		True				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		400	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		400	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		400	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,50	xUn	0,05	1,20	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Time multiplier		1,000		0,025	15,000	
Operate delay time		400	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		400	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		400	ms	20	300000	
Operating curve type		IEC Def. Time				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		750	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		750	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		750	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		750	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		750	ms	40	300000	
settingGroup 6						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		750	ms	40	300000	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
settingGroup 6						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1500	ms	40	300000	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Operation		off				
Current value		0,300	xIn	0,050	2,000	
Current value Res		0,30	xIn	0,05	2,00	
CB failure trip mode		1 out of 3				
CB failure mode		Current				
CB fail retrip mode		Off				
Retrip time		120	ms	0	60000	
CB failure delay		240	ms	0	60000	
CB fault delay		5000	ms	0	60000	
Measurement mode		Peak-to-Peak				
Trip pulse time		200	ms	0	60000	
Start latching mode		Rising edge				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CB; ARCSARC2: 21						
ARC(2)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Control						
25; SECRSYN1: 1						
SYNC(1)						
Operation		on				
Synchro check mode		Asynchronous				
Control mode		Continuous				
Dead line value		0,1	xUn	0,1	0,8	
Live line value		0,5	xUn	0,2	1,0	
Dead bus value		0,1	xUn	0,1	0,8	
Live bus value		0,5	xUn	0,2	1,0	
Max energizing V		1,11	xUn	0,50	1,15	
Phase shift		0	deg	-180	180	
Minimum Syn time		10000	ms	0	60000	
Energizing time		100	ms	100	60000	
Closing time of CB		50	ms	40	250	
Voltage source switch		False				
settingGroup 1						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 2						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 3						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 4						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 5						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 6						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	

Settings

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
REX640_A7						
IED Configuration						
HW Configuration						
Slot B (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot C (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input 10 filter time		5	ms	5	1000	
Input 11 filter time		5	ms	5	1000	
Input 12 filter time		5	ms	5	1000	
Input 13 filter time		5	ms	5	1000	
Input 14 filter time		5	ms	5	1000	
Input 14 counter-mode		False				
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input counter threshold voltage		24	V	16	176	
Input counter threshold hysteresis		50	%	10	50	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Input 10 inversion		False				
Input 11 inversion		False				
Input 12 inversion		False				
Input 13 inversion		False				
Input 14 inversion		False				
Slot D (BIO)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input 9 filter time		5	ms	5	1000	
Input threshold voltage		16	V	16	176	
Input threshold hysteresis		10	%	10	50	
Input inversion						
Input 1 inversion		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
Input 9 inversion		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
POSITION		intermediate				
SPCGAPC1: 1						
SPC(1)						
TRIG 1		False				
TRIG 2		False				
TRIG 3		False				
TRIG 4		False				
TRIG 5		False				
TRIG 6		False				
TRIG 7		False				
TRIG 8		False				
TRIG 9		False				
TRIG 10		False				
TRIG 11		False				
TRIG 12		False				
TRIG 13		False				
TRIG 14		False				
TRIG 15		False				
TRIG 16		False				
Measurements						
PEMMXU1: 1						
P,E(1)						
S-kVA:1		0,0	kVA	-999999,9	999999,9	
P-kW:1		0,0	kW	-999999,9	999999,9	
Q-kVAr:1		0,0	kVAr	-999999,9	999999,9	
PF:1		0,00		-1,00	1,00	
CMMXU1: 1						
3I(1)						
IL1-A:1		0,00	xIn	0,00	40,00	
IL2-A:1		0,00	xIn	0,00	40,00	
IL3-A:1		0,00	xIn	0,00	40,00	
RESCMMXU1: 1						
Io(1)						
Io-A:1		0,00	xIn	0,00	40,00	
RESVMMXU1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Uo(1)						
Uo-kV:1		0,00	xUn	0,00	4,00	
VMMXU1: 1						
3U(1)						
U12-kV:1		0,00	xUn	0,00	4,00	
U23-kV:1		0,00	xUn	0,00	4,00	
U31-kV:1		0,00	xUn	0,00	4,00	
UL1-kV:1		0,00	xUn	0,00	5,00	
UL2-kV:1		0,00	xUn	0,00	5,00	
UL3-kV:1		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
U12-kV:2		0,00	xUn	0,00	4,00	
U23-kV:2		0,00	xUn	0,00	4,00	
U31-kV:2		0,00	xUn	0,00	4,00	
UL1-kV:2		0,00	xUn	0,00	5,00	
UL2-kV:2		0,00	xUn	0,00	5,00	
UL3-kV:2		0,00	xUn	0,00	5,00	
FMMXU1: 1						
f(1)						
f-Hz:1		50,00	Hz	35,00	75,00	
CSMSQI1: 1						
I1,I2,I0(1)						
NgSeq-A:1		0,00	xIn	0,00	40,00	
PsSeq-A:1		0,00	xIn	0,00	40,00	
ZrSeq-A:1		0,00	xIn	0,00	40,00	
VSMSQI1: 1						
U1,U2,U0(1)						
NgSeq-kV:1		0,00	xUn	0,00	4,00	
PsSeq-kV:1		0,00	xUn	0,00	4,00	
ZrSeq-kV:1		0,00	xUn	0,00	4,00	
Disturbance records						
Disturbance recorder: 0						
Disturbance recorder						
Number of recordings		0		0	100	
Rem. amount of rec.		0		0	100	
Rec. memory used		0	%	0	100	
Trig recording		Cancel				
Time to trigger		0	s	0	604800	
Configuration						
Disturbance recorder: 0						
Disturbance recorder						
General						
Operation		on				
Record length		50	cycles	10	500	
Pre-trg length		50	%	0	100	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Overwrite				
Exclusion time		0	ms	0	1000000	
Storage rate		32 samples / cycle				
Periodic trig time		0	s	0	604800	
Stor. mode periodic		Waveform				
Stor. mode manual		Waveform				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Operation		on				
Select timeout		30000	ms	10000	300000	
Pulse length		200	ms	10	60000	
Operation counter		0		0	99999	
Control model		sbo-with-enhanced-security				
Adaptive pulse		True				
Event delay		200	ms	0	10000	
Operation timeout		500	ms	10	6000000	
Interlocking Pls Len		2	s	1	10	
Identification		CBXCBR1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
General: 0						
Control						
General						
LR control		Binary input				
Station authority		L,R				
Control mode		On				
DCSXSWI1: 1						
I<->O DC(1)						
Event delay		30000	ms	0	60000	
Identification		DCSXSWI1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
ESSXSWI1: 1						
I<->O ES(1)						
Event delay		30000	ms	0	60000	
Identification		ESSXSWI1 switch position			255 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
System						
Control: 0						
Control						
Rated frequency		50Hz				
Phase rotation		ABC				
Blocking mode		Freeze timer				
Bay name		REX640_A7			20 characters	
IDMT Sat point		50	I/I>	10	50	
Frequency adaptivity		Disable				
SMV Max Delay		3/3 ms				
Test mode selection		Local				
HMI						
EIHMI1: 1						
EIHMI1						
Backlight brightness		100	%	1	100	
Enable USB access		No				
Enable HMI service port		Yes				
Communication						
Ethernet						
Rate Limiter: 1						
Rate Limiter						
Rate limiter						
Rate limit ctrl		False				
RCHLCCH1: 1						
RCHLCCH1						
Redundancy						
Redundant mode		None				
Filter						
Filter mode A_B		Off				
Rate limiter						
GOOSE rate limit A_B		10,000		0,512	90,000	
SMV rate limit A_B		70,000		0,512	90,000	
Def. rate limit A_B		8,000		0,512	90,000	
SCHLCCH1: 1						
SCHLCCH1						
Port modes						
Port mode X1		On				
Filter						
Filter mode X1		Off				
Rate limiter						
GOOSE rate limit X1		10,000		0,512	90,000	
SMV rate limit X1		70,000		0,512	90,000	
Def. rate limit X1		8,000		0,512	90,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SCHLCCH2: 2						
SCHLCCH2						
Port modes						
Port mode X2		On				
Filter						
Filter mode X2		Off				
Rate limiter						
GOOSE rate limit X2		10,000		0,512	90,000	
SMV rate limit X2		70,000		0,512	90,000	
Def. rate limit X2		8,000		0,512	90,000	
SCHLCCH3: 3						
SCHLCCH3						
Port modes						
Port mode X3		On				
Filter						
Filter mode X3		Off				
Rate limiter						
GOOSE rate limit X3		10,000		0,512	90,000	
SMV rate limit X3		70,000		0,512	90,000	
Def. rate limit X3		8,000		0,512	90,000	
Network1: 1						
Network1						
Network1 address						
IP address		192.168.10.10				
Subnet mask		255.255.255.224				
Default gateway		192.168.10.30				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
Network2: 2						
Network2						
Network2 address						
Enable		False				
IP address		192.168.3.10				
Subnet mask		255.255.255.0				
Default gateway		0.0.0.0			16 characters	
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
HMI: 1						
HMI						
HMI address						
IP address		192.168.0.254				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Protocols						
GSELPRT1: 1						
GSE(1)						
GOOSE						
Change det. interval		500	ms	50	1000	
MMSLPRT1: 1						
MMS(1)						
MMS						
Unit mode		Nominal				
Network1						
MMS		On				
HMI port						
MMS		On				
FTPLPRT1: 1						
FTPLPRT1						
Network1						
FTP		Secure				
HMI port						
FTP		Secure				
HTTPLPRT1: 1						
HTTPLPRT1						
Network1						
HTTPS		On				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Network1						
Modbus		On				
MBSLPRT2: 2						
MBSLPRT2						
Modbus (2)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Prtl Customization		0		0	2147483647	
Analog inputs						
Current (3I): 1						
Current (3I)						
Current input type		Current trafo				
Primary current		150,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		True				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Current (Io): 1						
Current (Io)						
Current input type		Current trafo				
Primary current		100,0	A	1,0	15000,0	
Secondary current		1A				
Rated secondary Val		3,000	mV/Hz	1,000	150,000	
Reverse polarity		False				
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage (3U): 1						
Voltage (3U)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (3UB): 2						
Voltage (3UB)						
Voltage input type		Voltage trafo				
Primary voltage		6,600	kV	0,100	800,000	
Secondary voltage		110	V	57	416	
Division ratio		10000		1000	20000	
VT connection		Wye				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (Uo): 1						
Voltage (Uo)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Voltage (UoB): 2						
Voltage (UoB)						
Primary voltage		3,810	kV	0,100	800,000	
Secondary voltage		110	V	57	240	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Measurements						
CMMXU1: 1						
3I(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
A high high limit		1,40	xIn	0,00	40,00	
A high limit		1,20	xIn	0,00	40,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A low limit		0,00	xIn	0,00	40,00	
A low low limit		0,00	xIn	0,00	40,00	
A deadband		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESCMMXU1: 1						
Io(1)						
Operation		on				
Measurement mode		DFT				
A Hi high limit res		0,20	xIn	0,00	40,00	
A high limit res		0,05	xIn	0,00	40,00	
A deadband res		2500		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
RESVMMXU1: 1						
Uo(1)						
Operation		on				
Measurement mode		DFT				
V Hi high limit res		0,20	xUn	0,00	4,00	
V high limit res		0,05	xUn	0,00	4,00	
V deadband res		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU1: 1						
3U(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		3 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,20	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	
Off delay time		0	ms	0	1800000	
VMMXU2: 2						
3U(2)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,00	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
On delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time		0	ms	0	1800000	
FMMXU1: 1						
f(1)						
Operation		on				
F high high limit		60,00	Hz	35,00	75,00	
F high limit		55,00	Hz	35,00	75,00	
F low limit		45,00	Hz	35,00	75,00	
F low low limit		40,00	Hz	35,00	75,00	
F deadband		1000		100	100000	
Def frequency Sel		Nominal				
PEMMXU1: 1						
P,E(1)						
Operation		on				
Power unit Mult		k				
Energy unit Mult		k				
Active power Dir		Forward				
Reactive power Dir		Forward				
Power deadband		10000		1000	10000	
Forward Wh Initial		0		0	999999999	
Reverse Wh Initial		0		0	999999999	
Forward VArh Initial		0		0	999999999	
Reverse VArh Initial		0		0	999999999	
Measurement mode		PhsA, PhsB, PhsC				
Pulse quantity		100000	Wh/VArh	1	10000000	
Pulse on time		1,000	s	0,050	60,000	
Pulse off time		0,500	s	0,050	60,000	
CSMSQI1: 1						
I1,I2,I0(1)						
Operation		on				
Ps Seq A Hi high Lim		1,40	xIn	0,00	40,00	
Ps Seq A high limit		1,20	xIn	0,00	40,00	
Ps Seq A low limit		0,00	xIn	0,00	40,00	
Ps Seq A low low Lim		0,00	xIn	0,00	40,00	
Ps Seq A deadband		2500		100	100000	
Ng Seq A Hi high Lim		0,20	xIn	0,00	40,00	
Ng Seq A High limit		0,05	xIn	0,00	40,00	
Ng Seq A low limit		0,00	xIn	0,00	40,00	
Ng Seq A low low Lim		0,00	xIn	0,00	40,00	
Ng Seq A deadband		2500		100	100000	
Zro A Hi high Lim		0,20	xIn	0,00	40,00	
Zro A High limit		0,05	xIn	0,00	40,00	
Zro A low limit		0,00	xIn	0,00	40,00	
Zro A low low Lim		0,00	xIn	0,00	40,00	
Zro A deadband		2500		100	100000	
Ps Seq A on delay time		0	ms	0	1800000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Ps Seq A off delay time		0	ms	0	1800000	
Ng Seq A on delay time		0	ms	0	1800000	
Ng Seq A off delay time		0	ms	0	1800000	
Zro A on delay time		0	ms	0	1800000	
Zro A off delay time		0	ms	0	1800000	
VSMSQI1: 1						
U1,U2,U0(1)						
Operation		on				
Ps Seq V Hi high Lim		1,40	xUn	0,00	4,00	
Ps Seq V high limit		1,20	xUn	0,00	4,00	
Ps Seq V low limit		0,00	xUn	0,00	4,00	
Ps Seq V low low Lim		0,00	xUn	0,00	4,00	
Ps Seq V deadband		10000		100	100000	
Ng Seq V Hi high Lim		0,20	xUn	0,00	4,00	
Ng Seq V High limit		0,05	xUn	0,00	4,00	
Ng Seq V low limit		0,00	xUn	0,00	4,00	
Ng Seq V low low Lim		0,00	xUn	0,00	4,00	
Ng Seq V deadband		10000		100	100000	
Zro V Hi high Lim		0,20	xUn	0,00	4,00	
Zro V High limit		0,05	xUn	0,00	4,00	
Zro V low limit		0,00	xUn	0,00	4,00	
Zro V low low Lim		0,00	xUn	0,00	4,00	
Zro V deadband		10000		100	100000	
Ps Seq V on delay time		0	ms	0	1800000	
Ps Seq V off delay time		0	ms	0	1800000	
Ng Seq V on delay time		0	ms	0	1800000	
Ng Seq V off delay time		0	ms	0	1800000	
Zro V on delay time		0	ms	0	1800000	
Zro V off delay time		0	ms	0	1800000	
Demand metering: 0						
Demand metering						
Demand interval		1 minute				
A demand Av mode		Linear				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Operation		on				
Trip pulse time		250	ms	20	60000	
Trip output mode		Non-latched				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Operation		on				
Acc stop current		10,00	A	5,00	500,00	
Open alarm time		40	ms	0	200	
Close alarm time		40	ms	0	200	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Opening time Cor		10	ms	-100	100	
Closing time Cor		10	ms	-100	100	
Spring charge time		15	s	0	60	
Counter initial Val		0		0	99999	
Alarm Op number		200		0	99999	
Lockout Op number		300		0	99999	
Current exponent		2,00		0,00	5,00	
Difference Cor time		5	ms	-10	10	
Alm Acc currents Pwr		2500,00		0,00	20000,00	
LO Acc currents Pwr		2500,00		0,00	20000,00	
Ini Acc currents Pwr		0,00		0,00	20000,00	
Initial CB Rmn life		5000		0	99999	
Rated Op current		1000,00	A	100,00	6300,00	
Rated fault current		5000,00	A	500,00	99999,00	
Op number rated		10000		1	99999	
Op number fault		1000		1	10000	
Life alarm level		500		0	99999	
Pressure alarm time		10	ms	0	60000	
Pres lockout time		10	ms	0	60000	
Inactive Alm days		2000		0	9999	
Ini inactive days		0		0	9999	
Inactive Alm hours		0	h	0	23	
Travel time Clc mode		From Pos to Pos				
Supervision						
TCSSCBR1: 1						
TCS(1)						
Operation		off				
Operate delay time		3000	ms	1000	300000	
Reset delay time		1000	ms	1000	60000	
CCSPVC1: 1						
MCS 3I(1)						
Operation		on				
Start value		0,05	xIn	0,05	0,50	
Max operate current		1,50	xIn	1,00	5,00	
SEQSPVC1: 1						
FUSEF(1)						
Operation		off				
Neg Seq current Lev		0,03	xIn	0,03	0,20	
Neg Seq voltage Lev		0,10	xUn	0,03	0,20	
Change rate enable		False				
Min Op voltage delta		0,50	xUn	0,01	1,00	
Min Op current delta		0,10	xIn	0,01	1,00	
Enable seal in		False				
Current dead Lin Val		0,05	xIn	0,05	1,00	
Disturbance recorder						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A1RADR: 1						
A1RADR						
Analog channel 1						
Operation		on				
Channel id text		Analog ch 1 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 2						
Operation		on				
Channel id text		Analog ch 2 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 3						
Operation		on				
Channel id text		Analog ch 3 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 4						
Operation		on				
Channel id text		Analog ch 4 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 5						
Operation		on				
Channel id text		Analog ch 5 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 6						
Operation		on				
Channel id text		Analog ch 6 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 7						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 7 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 8						
Operation		on				
Channel id text		Analog ch 8 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 9						
Operation		on				
Channel id text		Analog ch 9 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 10						
Operation		on				
Channel id text		Analog ch 10 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 11						
Operation		on				
Channel id text		Analog ch 11 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 12						
Operation		on				
Channel id text		Analog ch 12 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
A2RADR: 13						
A2RADR						
Analog channel 13						
Operation		on				
Channel id text		Analog ch 13 input			64 characters	
High trigger level		10,00		0,00	60,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 14						
Operation		on				
Channel id text		Analog ch 14 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 15						
Operation		on				
Channel id text		Analog ch 15 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 16						
Operation		on				
Channel id text		Analog ch 16 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 17						
Operation		on				
Channel id text		Analog ch 17 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 18						
Operation		on				
Channel id text		Analog ch 18 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 19						
Operation		on				
Channel id text		Analog ch 19 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 20						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Analog ch 20 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 21						
Operation		on				
Channel id text		Analog ch 21 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 22						
Operation		on				
Channel id text		Analog ch 22 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 23						
Operation		on				
Channel id text		Analog ch 23 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 24						
Operation		on				
Channel id text		Analog ch 24 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
B1RBDR: 1						
B1RBDR						
Binary channel 1						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 1 input			64 characters	
Binary channel 2						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 2 input			64 characters	
Binary channel 3						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 3 input			64 characters	
Binary channel 4						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 4 input			64 characters	
Binary channel 5						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 5 input			64 characters	
Binary channel 6						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 6 input			64 characters	
Binary channel 7						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 7 input			64 characters	
Binary channel 8						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 8 input			64 characters	
Binary channel 9						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 9 input			64 characters	
Binary channel 10						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 10 input			64 characters	
Binary channel 11						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 11 input			64 characters	
Binary channel 12						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 12 input			64 characters	
Binary channel 13						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 13 input			64 characters	
Binary channel 14						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 14 input			64 characters	
Binary channel 15						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 15 input			64 characters	
Binary channel 16						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 16 input			64 characters	
Binary channel 17						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 17 input			64 characters	
Binary channel 18						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 18 input			64 characters	
Binary channel 19						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 19 input			64 characters	
Binary channel 20						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 20 input			64 characters	
Binary channel 21						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 21 input			64 characters	
Binary channel 22						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 22 input			64 characters	
Binary channel 23						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 23 input			64 characters	
Binary channel 24						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 24 input			64 characters	
Binary channel 25						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 25 input			64 characters	
Binary channel 26						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 26 input			64 characters	
Binary channel 27						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 27 input			64 characters	
Binary channel 28						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 28 input			64 characters	
Binary channel 29						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 29 input			64 characters	
Binary channel 30						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 30 input			64 characters	
Binary channel 31						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 31 input			64 characters	
Binary channel 32						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 32 input			64 characters	
B2RBDR: 33						
B2RBDR						
Binary channel 33						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 33 input			64 characters	
Binary channel 34						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 34 input			64 characters	
Binary channel 35						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 35 input			64 characters	
Binary channel 36						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 36 input			64 characters	
Binary channel 37						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 37 input			64 characters	
Binary channel 38						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 38 input			64 characters	
Binary channel 39						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 39 input			64 characters	
Binary channel 40						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 40 input			64 characters	
Binary channel 41						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 41 input			64 characters	
Binary channel 42						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 42 input			64 characters	
Binary channel 43						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 43 input			64 characters	
Binary channel 44						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 44 input			64 characters	
Binary channel 45						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 45 input			64 characters	
Binary channel 46						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 46 input			64 characters	
Binary channel 47						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 47 input			64 characters	
Binary channel 48						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 48 input			64 characters	
Binary channel 49						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 49 input			64 characters	
Binary channel 50						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 50 input			64 characters	
Binary channel 51						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 51 input			64 characters	
Binary channel 52						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 52 input			64 characters	
Binary channel 53						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 53 input			64 characters	
Binary channel 54						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 54 input			64 characters	
Binary channel 55						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 55 input			64 characters	
Binary channel 56						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 56 input			64 characters	
Binary channel 57						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 57 input			64 characters	
Binary channel 58						
Operation		off				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 58 input			64 characters	
Binary channel 59						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 59 input			64 characters	
Binary channel 60						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 60 input			64 characters	
Binary channel 61						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 61 input			64 characters	
Binary channel 62						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 62 input			64 characters	
Binary channel 63						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 63 input			64 characters	
Binary channel 64						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 64 input			64 characters	
Fault record						
FLTRFRC1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
FLTRFRC1						
Operation		on				
Trig mode		From operate				
A measurement mode		DFT				
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Operation		on				
Mem. warning level		0	%	0	100	
Mem. alarm level		0	%	0	100	
Generic timers						
TONGAPC1: 1						
TON(1)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TONGAPC2: 2						
TON(2)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TOFGAPC1: 1						
TOF(1)						
Off delay time 1		500	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
TOFGAPC2: 2						
TOF(2)						
Off delay time 1		0	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
PTGAPC1: 1						
PT(1)						
Pulse time 1		150	ms	0	3600000	
Pulse time 2		150	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
PTGAPC2: 2						
PT(2)						
Pulse time 1		0	ms	0	3600000	
Pulse time 2		0	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
Generic logic						
SPCGAPC1: 1						
SPC(1)						
General						
Loc Rem restriction		False				
Output 1						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM CLOSE CMD (DIRECT)			64 characters	
Output 2						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		REM OPEN CMD (DIRECT)			64 characters	
Output 3						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		RESET ALARMS			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 4						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 4			64 characters	
Output 5						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 5			64 characters	
Output 6						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 6			64 characters	
Output 7						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 7			64 characters	
Output 8						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 8			64 characters	
Output 9						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 9			64 characters	
Output 10						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 10			64 characters	
Output 11						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 11			64 characters	
Output 12						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 12			64 characters	
Output 13						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		SPCGAPC1 Output 13			64 characters	
Output 14						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 14			64 characters	
Output 15						
Operation mode		Pulsed				
Pulse length		150	ms	10	3600000	
Description		EMERGENCY			64 characters	
Output 16						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC1 Output 16			64 characters	
SRGAPC1: 1						
SR(1)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC2: 2						
SR(2)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC3: 3						
SR(3)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MVGAPC1: 1						
MV(1)						
Output 1						
Description		MVGAPC1 Q1			20 characters	
Output 2						
Description		MVGAPC1 Q2			20 characters	
Output 3						
Description		MVGAPC1 Q3			20 characters	
Output 4						
Description		MVGAPC1 Q4			20 characters	
Output 5						
Description		MVGAPC1 Q5			20 characters	
Output 6						
Description		MVGAPC1 Q6			20 characters	
Output 7						
Description		MVGAPC1 Q7			20 characters	
Output 8						
Description		MVGAPC1 Q8			20 characters	
MVGAPC2: 2						
MV(2)						
Output 1						
Description		MVGAPC2 Q1			20 characters	
Output 2						
Description		MVGAPC2 Q2			20 characters	
Output 3						
Description		MVGAPC2 Q3			20 characters	
Output 4						
Description		MVGAPC2 Q4			20 characters	
Output 5						
Description		MVGAPC2 Q5			20 characters	
Output 6						
Description		MVGAPC2 Q6			20 characters	
Output 7						
Description		MVGAPC2 Q7			20 characters	
Output 8						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC2 Q8			20 characters	
MVGAPC3: 3						
MV(3)						
Output 1						
Description		MVGAPC3 Q1			20 characters	
Output 2						
Description		MVGAPC3 Q2			20 characters	
Output 3						
Description		MVGAPC3 Q3			20 characters	
Output 4						
Description		MVGAPC3 Q4			20 characters	
Output 5						
Description		MVGAPC3 Q5			20 characters	
Output 6						
Description		MVGAPC3 Q6			20 characters	
Output 7						
Description		MVGAPC3 Q7			20 characters	
Output 8						
Description		MVGAPC3 Q8			20 characters	
MVGAPC4: 4						
MV(4)						
Output 1						
Description		MVGAPC4 Q1			20 characters	
Output 2						
Description		MVGAPC4 Q2			20 characters	
Output 3						
Description		MVGAPC4 Q3			20 characters	
Output 4						
Description		MVGAPC4 Q4			20 characters	
Output 5						
Description		MVGAPC4 Q5			20 characters	
Output 6						
Description		MVGAPC4 Q6			20 characters	
Output 7						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC4 Q7			20 characters	
Output 8						
Description		MVGAPC4 Q8			20 characters	
General: 0						
General						
Software reset		Cancel				
HMI: 0						
HMI						
FB naming convention		IEC61850				
Backlight timeout		3	min	1	60	
Web HMI mode		On				
HMI timeout		15	min	1	60	
SLD symbol format		IEC				
Setting visibility		Advanced				
User defined name		Disabled				
Time: 0						
Time						
System time						
Time format		24H:MM:SS:MS				
Date format		DD.MM.YYYY				
Date		0			20 characters	
Time		0			20 characters	
Local time offset		0	min	-840	840	
Daylight saving time						
DST in use		True				
DST on time (hours)		2	h	0	23	
DST on time (minutes)		0	min	0	59	
DST on date (day)		1		1	31	
DST on date (month)		May				
DST on day (weekday)		reserved				
DST off time (hours)		2	h	0	23	
DST off time (minutes)		0	min	0	59	
DST off date (day)		25		1	31	
DST off date (month)		September				
DST off day (weekday)		reserved				
DST offset		60	min	-720	720	
SNTP						
IP SNTP primary		192.168.2.166				
IP SNTP secondary		192.168.2.165				
Synchronization						
Synch source		SNTP				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PTP Profile		IEEE C37.238-2011				
PTP domain ID		0		0	255	
PTP priority 1		128		0	255	
PTP priority 2		128		0	255	
PTP Slave-only		False				
Time master mode		Master with finite holdover				
Clear clock list		False				
Time Syn Src Tmm		3	min	1	65535	
Setting group: 0						
Setting group						
SG operation mode		Operator				
Control: 0						
Control						
LHMI						
Close delay mode		Not in use				
Close delay		60	s	5	900	
Breaker operation		After confirmation				
Programmable LEDs: 1						
Programmable LEDs						
General						
Alarm colour		Red				
LED 1						
Alarm mode		Follow-S				
Description		27/59 Voltage Protection			64 characters	
LED 2						
Alarm mode		Follow-S				
Description		Contactor Ready			64 characters	
LED 3						
Alarm mode		Follow-S				
Description		Synchrocheck			64 characters	
LED 4						
Alarm mode		Follow-S				
Description		Contactor Ready to close			64 characters	
LED 5						
Alarm mode		Follow-S				
Description		50/51 Current Protection			64 characters	
LED 6						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Alarm mode		Follow-S				
Description		51N/59N Earth Fault Protection			64 characters	
LED 7						
Alarm mode		Follow-S				
Description		Earthing Switch Unlocked			64 characters	
LED 8						
Alarm mode		Follow-S				
Description		Contactor Truck Unlocked			64 characters	
LED 9						
Alarm mode		Follow-S				
Description		Arc Protection Trip			64 characters	
LED 10						
Alarm mode		Follow-S				
Description		GOOSE Alarm			64 characters	
LED 11						
Alarm mode		Follow-S				
Description		Emergency Open by SIS			64 characters	
Programmable LEDs: 2						
Programmable LEDs						
LED 12						
Alarm mode		Follow-S				
Description		Space Heater ON			64 characters	
LED 13						
Alarm mode		Follow-S				
Description		Transformer Protections			64 characters	
LED 14						
Alarm mode		Follow-S				
Description		Contactor Fuses Trip			64 characters	
LED 15						
Alarm mode		Follow-S				
Description		Trip from LV			64 characters	
LED 16						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 17						
Alarm mode		Follow-S				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		-			64 characters	
LED 18						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 19						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 20						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 21						
Alarm mode		Follow-S				
Description		-			64 characters	
LED 22						
Alarm mode		Follow-S				
Description		-			64 characters	
I/O modules: 0						
I/O modules						
Common settings						
Slot specific threshold		False				
Slot specific hysteresis		False				
Input threshold voltage		16	Vdc	16	176	
Input threshold hysteresis		10	%	10	50	
Input osc. level		30	events/s	2	50	
Input osc. hyst		10	events/s	2	50	
User Activity log: 0						
User Activity log						
Server Settings 1						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address		192.168.2.5				
Server Settings 2						
Enable		Disable				
Communication Type		UDP				
Communication Port		514		1	7800	
Server IP Address2		192.168.2.6				
Authorization: 1						
Authorization						
Security						
Remote Update		Disable				
Passwords						
Remote override		True				
Local override		True				
CAM						
Clear AD userlist		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Network1						
FTP write access		On				
MMS write access		On				
HTTPS write access		On				
HMI						
FTP write access		On				
MMS write access		On				
Monitoring						
Communication						
Ethernet						
RCHLCCH1: 1						
RCHLCCH1						
Activity						
CHLIV_A		False				
REDCHLIV_B		False				
Link statuses						
LNKLIV_A		False				
REDLNKLIV_B		False				
Diagnostics						
A_B						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH1: 1						
SCHLCCH1						
Activity						
CH1LIV		False				
Link statuses						
LNK1LIV		False				
Diagnostics						
X1						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SCHLCCH2: 2						
SCHLCCH2						
Activity						
CH2LIV		False				
Link statuses						
LNK2LIV		False				
Diagnostics						
X2						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
SCHLCCH3: 3						
SCHLCCH3						
Activity						
CH3LIV		False				
Link statuses						
LNK3LIV		False				
Diagnostics						
X3						
Reset counters		False				
GOOSE limit count		0		0	1000000	
SMV limit count		0		0	1000000	
Ucast limit count		0		0	1000000	
Def. limit count		0		0	1000000	
GOOSE limit alarm		False				
SMV limit alarm		False				
Ucast limit alarm		False				
Def. limit alarm		False				
HMILCCH1: 1						
HMILCCH1						
Activity						
HMICHLIV		False				
Link statuses						
HMILNKLIV		Down				
SCHLCCH6: 6						
SCHLCCH6						
Activity						
CH6LIV		False				
Link statuses						
LNK6LIV		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Diagnostics						
X6						
Temperature		0,0	°C	-128,0	128,0	
Voltage		0,000	V	0,000	6,550	
Bias current		0,0	mA	0,0	131,0	
TX power		0,000	mW	0,000	6,550	
RX power		0,000	mW	0,000	6,550	
XCVR detected		False				
RX power alarm		False				
TX power alarm		False				
Voltage alarm		False				
Temperature alarm		False				
Part name		0			20 characters	
Protocols						
MMSLPRT1: 1						
MMS(1)						
CHLIV		False				
Successful conn.		0		0	10000000	
Failed conn.		0		0	10000000	
Concludes		0		0	10000000	
Sent aborts		0		0	10000000	
Recv. aborts		0		0	10000000	
Sent rejects		0		0	10000000	
Recv. requests		0		0	10000000	
Failed requests		0		0	10000000	
Reads		0		0	10000000	
Failed reads		0		0	10000000	
Writes		0		0	10000000	
Failed writes		0		0	10000000	
Reports		0		0	10000000	
Active conn.		0		0	10000000	
Reset counters		False				
MBSLPRT1: 1						
MBSLPRT1						
Modbus (1)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT2: 2						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
MBSLPRT2						
Modbus (2)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT3: 3						
MBSLPRT3						
Modbus (3)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT4: 4						
MBSLPRT4						
Modbus (4)						
STATUS		False				
Customization Mode		Off/Normal				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MBSLPRT5: 5						
MBSLPRT5						
Modbus (5)						
STATUS		False				
Reset counters		False				
Customization Mode		Off/Normal				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Rec. memory used		0	%	0	100	
MEM_WARN		False				
MEM_ALARM		False				
I/O status						
Binary input values						
Slot B (BIO): 1						
Slot B (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot C (BIO): 1						
Slot C (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
Input 10		False				
Input 11		False				
Input 12		False				
Input 13		False				
Input 14		False				
Slot D (BIO): 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Slot D (BIO)						
Input 1		False				
Input 2		False				
Input 3		False				
Input 4		False				
Input 5		False				
Input 6		False				
Input 7		False				
Input 8		False				
Input 9		False				
TCS Input 1		False				
TCS Input 2		False				
Binary output values						
Slot B (BIO): 1						
Slot B (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot C (BIO): 1						
Slot C (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot D (BIO): 1						
Slot D (BIO)						
Output 1		False				
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Slot G (PSM): 1						
Slot G (PSM)						
Output 1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Output 2		False				
Output 3		False				
Output 4		False				
Output 5		False				
Output 6		False				
Output 7		False				
Output 8		False				
Output 9		False				
Output 10		False				
Analog inputs						
Current (3I): 1						
Current (3I)						
ALARM		False				
WARNING		False				
Current (Io): 1						
Current (Io)						
ALARM		False				
WARNING		False				
Voltage (Uo): 1						
Voltage (Uo)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (UoB): 2						
Voltage (UoB)						
URES_ALARM		False				
URES_WARNING		False				
Voltage (3U): 1						
Voltage (3U)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Voltage (3UB): 2						
Voltage (3UB)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
Measurements						
CMMXU1: 1						
3I(1)						
Inputs						
BLOCK		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
I_INST_A		0,00	xIn	0,00	40,00	
I_ANGL_A		0,00	deg	-180,00	180,00	
I_DB_A		0,00	xIn	0,00	40,00	
I_DMD_A		0,00	xIn	0,00	40,00	
I_RANGE_A		normal				
I_INST_B		0,00	xIn	0,00	40,00	
I_ANGL_B		0,00	deg	-180,00	180,00	
I_DB_B		0,00	xIn	0,00	40,00	
I_DMD_B		0,00	xIn	0,00	40,00	
I_RANGE_B		normal				
I_INST_C		0,00	xIn	0,00	40,00	
I_ANGL_C		0,00	deg	-180,00	180,00	
I_DB_C		0,00	xIn	0,00	40,00	
I_DMD_C		0,00	xIn	0,00	40,00	
I_RANGE_C		normal				
RESCMMXU1: 1						
Io(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
I_INST_RES		0,00	xIn	0,00	40,00	
I_ANGL_RES		0,00	deg	-180,00	180,00	
I_DB_RES		0,00	xIn	0,00	40,00	
I_DMD_RES		0,00	xIn	0,00	40,00	
I_RANGE_RES		normal				
RESVMMXU1: 1						
Uo(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
U_INST_RES		0,00	xUn	0,00	4,00	
U_ANGL_RES		0,00	deg	-180,00	180,00	
U_DB_RES		0,00	xUn	0,00	4,00	
U_DMD_RES		0,00	xUn	0,00	4,00	
U_RANGE_RES		normal				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
VMMXU1: 1						
3U(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
VMMXU2: 2						
3U(2)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
CSMSQI1: 1						
I1,I2,I0(1)						
Outputs						
I2_HIGH_AL		False				
I2_HIGH_WARN		False				
I1_HIGH_AL		False				
I1_HIGH_WARN		False				
I1_LOW_WARN		False				
I1_LOW_AL		False				
I0_HIGH_AL		False				
I0_HIGH_WARN		False				
Monitored data						
I2_INST		0,00	xIn	0,00	40,00	
I2_ANGL		0,00	deg	-180,00	180,00	
I2_DB		0,00	xIn	0,00	40,00	
I2_RANGE		normal				
I1_INST		0,00	xIn	0,00	40,00	
I1_ANGL		0,00	deg	-180,00	180,00	
I1_DB		0,00	xIn	0,00	40,00	
I1_RANGE		normal				
I0_INST		0,00	xIn	0,00	40,00	
I0_ANGL		0,00	deg	-180,00	180,00	
I0_DB		0,00	xIn	0,00	40,00	
I0_RANGE		normal				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
VSMSQI1: 1						
U1,U2,U0(1)						
Outputs						
U2_HIGH_AL		False				
U2_HIGH_WARN		False				
U1_HIGH_AL		False				
U1_HIGH_WARN		False				
U1_LOW_WARN		False				
U1_LOW_AL		False				
U0_HIGH_AL		False				
U0_HIGH_WARN		False				
Monitored data						
U2_INST		0,00	xUn	0,00	4,00	
U2_ANGL		0,00	deg	-180,00	180,00	
U2_DB		0,00	xUn	0,00	4,00	
U2_RANGE		normal				
U1_INST		0,00	xUn	0,00	4,00	
U1_ANGL		0,00	deg	-180,00	180,00	
U1_DB		0,00	xUn	0,00	4,00	
U1_RANGE		normal				
U0_INST		0,00	xUn	0,00	4,00	
U0_ANGL		0,00	deg	-180,00	180,00	
U0_DB		0,00	xUn	0,00	4,00	
U0_RANGE		normal				
PEMMXU1: 1						
P,E(1)						
Inputs						
RSTACM		False				
Monitored data						
S_INST		0,0	kVA	-999999,9	999999,9	
S_DB		0,0	kVA	-999999,9	999999,9	
S_DMD		0,0	kVA	-999999,9	999999,9	
P_INST		0,0	kW	-999999,9	999999,9	
P_DB		0,0	kW	-999999,9	999999,9	
P_DMD		0,0	kW	-999999,9	999999,9	
Q_INST		0,0	kVAr	-999999,9	999999,9	
Q_DB		0,0	kVAr	-999999,9	999999,9	
Q_DMD		0,0	kVAr	-999999,9	999999,9	
PF_INST		0,00		-1,00	1,00	
PF_DB		0,00		-1,00	1,00	
PF_DMD		0,00		-1,00	1,00	
EA_RV_ACM		0	kWh	0	999999999	
ER_RV_ACM		0	kVArh	0	999999999	
EA_FWD_ACM		0	kWh	0	999999999	
ER_FWD_ACM		0	kVArh	0	999999999	
FMMXU1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
f(1)						
Monitored data						
F_INST		50,00	Hz	35,00	75,00	
F_DB		50,00	Hz	35,00	75,00	
F_RANGE		normal				
Generic logic						
SPCGAPC1: 1						
SPC(1)						
Inputs						
BLOCK		False				
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
IN9		False				
IN10		False				
IN11		False				
IN12		False				
IN13		False				
IN14		False				
IN15		False				
IN16		False				
Outputs						
O1		False				
O2		False				
O3		False				
O4		False				
O5		False				
O6		False				
O7		False				
O8		False				
O9		False				
O10		False				
O11		False				
O12		False				
O13		False				
O14		False				
O15		False				
O16		False				
SRGAPC1: 1						
SR(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC2: 2						
SR(2)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC3: 3						
SR(3)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC1: 1						
MV(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC2: 2						
MV(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC3: 3						
MV(3)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q6		False				
Q7		False				
Q8		False				
MVGAPC4: 4						
MV(4)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Inputs						
ENA_OPEN		True				
ENA_CLOSE		True				
BLK_OPEN		False				
BLK_CLOSE		False				
SYNC_OK		True				
SYNC_BYPASS		False				
ITL_BYPASS		False				
Outputs						
SELECTED		False				
EXE_OP		False				
EXE_CL		False				
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
OPEN_ENAD		False				
CLOSE_ENAD		False				
CTL_ITL_BLKD		False				
Monitored data						
POSITION		intermediate				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
DCSXSWI1: 1						
I<->O DC(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
ESSXSWI1: 1						
I<->O ES(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						
POSITION		intermediate				
25; SECRSYN1: 1						
SYNC(1)						
Inputs						
BLOCK		False				
CL_COMMAND		False				
BYPASS		False				
Outputs						
SYNC_INPRO		False				
SYNC_OK		False				
CL_FAIL_AL		False				
CMD_FAIL_AL		False				
LLDB		False				
LLLB		False				
DLLB		False				
DLDB		False				
Monitored data						
ENERG_STATE		Unknown				
U_DIFF_MEAS		0,00	xUn	-3,00	3,00	
FR_DIFF_MEAS		0,000	xFn	-1,500	1,500	
PH_DIFF_MEAS		0,00	deg	-180,00	180,00	
U_DIFF_SYNC		False				
PH_DIF_SYNC		False				
FR_DIFF_SYNC		False				
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
51-1; PHLPTOC1: 1						
3I>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
67-1; DPHLPDOC1: 1						
3I>->(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
NON_DIR		False				
Outputs						
OPERATE		False				
START		False				
FAULT_DIR		unknown				
DIRECTION		unknown				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
DIR_A		unknown				
DIR_B		unknown				
DIR_C		unknown				
ANGLE_A		0,00	deg	-180,00	180,00	
ANGLE_B		0,00	deg	-180,00	180,00	
ANGLE_C		0,00	deg	-180,00	180,00	
VMEM_USED		False				
67-2; DPHLPDOC2: 2						
3I>->(2)						
Inputs						
BLOCK		False				
ENA_MULT		False				
NON_DIR		False				
Outputs						
OPERATE		False				
START		False				
FAULT_DIR		unknown				
DIRECTION		unknown				
Monitored data						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
START_DUR		0,00	%	0,00	100,00	
DIR_A		unknown				
DIR_B		unknown				
DIR_C		unknown				
ANGLE_A		0,00	deg	-180,00	180,00	
ANGLE_B		0,00	deg	-180,00	180,00	
ANGLE_C		0,00	deg	-180,00	180,00	
VMEM_USED		False				
68; INRPHAR1: 1						
3I2f>(1)						
Inputs						
BLOCK		False				
Outputs						
BLK2H		False				
51N; EFLPTOC1: 1						
Io>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Voltage protection						
59N-1; ROVPTOV1: 1						
Uo>(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59-1; PHPTOV1: 1						
3U>(1)						
Inputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
59-2; PHPTOV2: 2						
3U>(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-1; PHPTUV1: 1						
3U<(1)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
27-2; PHPTUV2: 2						
3U<(2)						
Inputs						
BLOCK		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Inputs						
BLOCK		False				
START		False				
POSCLOSE		False				
CB_FAULT		False				
Outputs						
CB_FAULT_AL		False				
TRBU		False				
TRRET		False				
ARC BUSBAR; ARCSARC1: 11						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ARC(1)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CB; ARCSARC2: 21						
ARC(2)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ALARM		False				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Inputs						
BLOCK		False				
OPERATE		False				
RST_LKOUT		False				
Outputs						
TRIP		False				
CL_LKOUT		False				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Inputs						
BLOCK		False				
POSOPEN		False				
POSCLOSE		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
OPEN_CB_EXE		False				
CLOSE_CB_EXE		False				
PRES_ALM_IN		False				
PRES_LO_IN		False				
RST_IPOW		False				
RST_CB_WEAR		False				
RST_TRV_T		False				
RST_SPR_T		False				
Outputs						
TRV_T_OP_ALM		False				
TRV_T_CL_ALM		False				
SPR_CHR_ALM		False				
OPR_ALM		False				
OPR_LO		False				
IPOW_ALM		False				
IPOW_LO		False				
CB_LIFE_ALM		False				
MON_ALM		False				
PRES_ALM		False				
PRES_LO		False				
OPENPOS		False				
INVALIDPOS		False				
CLOSEPOS		False				
Monitored data						
T_TRV_OP		0	ms	0	60000	
T_TRV_CL		0	ms	0	60000	
T_SPR_CHR		0,00	s	0,00	99,99	
NO_OPR		0		0	99999	
INA_DAYS		0		0	9999	
CB_LIFE_A		0		-99999	99999	
CB_LIFE_B		0		-99999	99999	
CB_LIFE_C		0		-99999	99999	
IPOW_A		0,000		0,000	30000,000	
IPOW_B		0,000		0,000	30000,000	
IPOW_C		0,000		0,000	30000,000	
Supervision						
TCSSCBR1: 1						
TCS(1)						
Inputs						
BLOCK		False				
Outputs						
ALARM		False				
CCSPVC1: 1						
MCS 3I(1)						
Inputs						
BLOCK		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
FAIL		False				
ALARM		False				
Monitored data						
IDIFF		0,00	xIn	0,00	40,00	
SEQSPVC1: 1						
FUSEF(1)						
Inputs						
BLOCK		False				
CB_CLOSED		False				
DISCON_OPEN		False				
MINCB_OPEN		False				
Outputs						
FUSEF_3PH		False				
FUSEF_U		False				
Communication						
GSELPRT1: 1						
GSE(1)						
Outputs						
ALARM		False				
Monitoring						
Reset counters		False				
Received msgs		0		0	10000000	
Transmitted msgs		0		0	10000000	
State changes		0		0	10000000	
SeqNum changes		0		0	10000000	
Test msgs		0		0	10000000	
State warnings		0		0	10000000	
Seq. warnings		0		0	10000000	
Recv. timeouts		0		0	10000000	
ConfRev errors		0		0	10000000	
NdsComm errors		0		0	10000000	
Dataset errors		0		0	10000000	
Replay Prot warnings		0		0	10000000	
Generic timers						
TONGAPC1: 1						
TON(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TONGAPC2: 2						
TON(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
T_LEFT8		0	s	0	3600	
TOFGAPC1: 1						
TOF(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
TOFGAPC2: 2						
TOF(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC1: 1						
PT(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
PTGAPC2: 2						
PT(2)						
Inputs						
IN1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Monitored data						
T_LEFT1		0	s	0	3600	
T_LEFT2		0	s	0	3600	
T_LEFT3		0	s	0	3600	
T_LEFT4		0	s	0	3600	
T_LEFT5		0	s	0	3600	
T_LEFT6		0	s	0	3600	
T_LEFT7		0	s	0	3600	
T_LEFT8		0	s	0	3600	
FB status						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Current protection						
3I>>>(1)		on				
51-1; PHLPTOC1: 1						
3I>(1)						
Current protection						
3I>(1)		on				
67-1; DPHLPDOC1: 1						
3I>->(1)						
Current protection						
3I>->(1)		on				
67-2; DPHLPDOC2: 2						
3I>->(2)						
Current protection						
3I>->(2)		on				
68; INRPHAR1: 1						
3I2f>(1)						
Current protection						
3I2f>(1)		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
51N; EFLPTOC1: 1						
Io>(1)						
Current protection						
Io>(1)		on				
59-1; PHPTOV1: 1						
3U>(1)						
Voltage protection						
3U>(1)		on				
59-2; PHPTOV2: 2						
3U>(2)						
Voltage protection						
3U>(2)		on				
27-1; PHPTUV1: 1						
3U<(1)						
Voltage protection						
3U<(1)		on				
27-2; PHPTUV2: 2						
3U<(2)						
Voltage protection						
3U<(2)		on				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Voltage protection						
Uo>(1)		on				
59N-2; ROVPTOV2: 2						
Uo>(2)						
Voltage protection						
Uo>(2)		on				
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Other protection						
3I>/Io>BF(1)		on				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Other protection						
ARC(1)		on				
ARC CB; ARCSARC2: 21						
ARC(2)						
Other protection						
ARC(2)		on				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Other protection						
ARC(3)		on				
25; SECRSYN1: 1						
SYNC(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Control						
SYNC(1)		on				
TRPPTRC1: 1						
Master Trip(1)						
Trip logic						
Master Trip(1)		on				
SSCBR1: 1						
CBCM(1)						
Condition monitoring						
CBCM(1)		on				
TCSSCBR1: 1						
TCS(1)						
Supervision						
TCS(1)		on				
CCSPVC1: 1						
MCS 3I(1)						
Supervision						
MCS 3I(1)		on				
SEQSPVC1: 1						
FUSEF(1)						
Supervision						
FUSEF(1)		on				
Recorded data						
Measurements						
CMMXU1: 1						
3I(1)						
Max demand IL1		0,00	xIn	0,00	40,00	
Max demand IL2		0,00	xIn	0,00	40,00	
Max demand IL3		0,00	xIn	0,00	40,00	
Min demand IL1		0,00	xIn	0,00	40,00	
Min demand IL2		0,00	xIn	0,00	40,00	
Min demand IL3		0,00	xIn	0,00	40,00	
Time max demand IL1		0			34 characters	
Time max demand IL2		0			34 characters	
Time max demand IL3		0			34 characters	
Time min demand IL1		0			34 characters	
Time min demand IL2		0			34 characters	
Time min demand IL3		0			34 characters	
RESCMMXU1: 1						
Io(1)						
Max demand Io		0,00	xIn	0,00	40,00	
Min demand Io		0,00	xIn	0,00	40,00	
Time max demand Io		0			34 characters	
Time min demand Io		0			34 characters	
PEMMXU1: 1						
P,E(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Max demand S		0,0	kVA	-999999,9	999999,9	
Min demand S		0,0	kVA	-999999,9	999999,9	
Max demand P		0,0	kW	-999999,9	999999,9	
Min demand P		0,0	kW	-999999,9	999999,9	
Max demand Q		0,0	kVAr	-999999,9	999999,9	
Min demand Q		0,0	kVAr	-999999,9	999999,9	
Time max dmd S		0			34 characters	
Time min dmd S		0			34 characters	
Time max dmd P		0			34 characters	
Time min dmd P		0			34 characters	
Time max dmd Q		0			34 characters	
Time min dmd Q		0			34 characters	
FLTRFRC1: 1						
FLTRFRC1						
Fault record						
Fault number		0		0	999999	
Time and date		0			34 characters	
Protection (rec. set 1)		None				
Protection (rec. set 2)		None				
Start duration		0,00	%	0,00	100,00	
Operate time		0,000	s	0,000	999999,999	
Breaker clear time		0,000	s	0,000	3,000	
Fault distance		0,00	pu	0,00	3000,00	
Fault resistance		0,00	ohm	0,00	3000,00	
Fault reactance		0,00	ohm	0,00	3000,00	
Active group		1		1	6	
Shot pointer		1		1	7	
Max diff current IL1:1		0,000	pu	0,000	80,000	
Max diff current IL2:1		0,000	pu	0,000	80,000	
Max diff current IL3:1		0,000	pu	0,000	80,000	
Diff current IL1:1		0,000	pu	0,000	80,000	
Diff current IL2:1		0,000	pu	0,000	80,000	
Diff current IL3:1		0,000	pu	0,000	80,000	
Max bias current IL1:1		0,000	pu	0,000	50,000	
Max bias current IL2:1		0,000	pu	0,000	50,000	
Max bias current IL3:1		0,000	pu	0,000	50,000	
Bias current IL1:1		0,000	pu	0,000	50,000	
Bias current IL2:1		0,000	pu	0,000	50,000	
Bias current IL3:1		0,000	pu	0,000	50,000	
Diff current Io:1		0,000	pu	0,000	80,000	
Bias current Io:1		0,000	pu	0,000	50,000	
Max current IL1:1		0,000	xIn	0,000	50,000	
Max current IL2:1		0,000	xIn	0,000	50,000	
Max current IL3:1		0,000	xIn	0,000	50,000	
Max current Io:1		0,000	xIn	0,000	50,000	
Current IL1:1		0,000	xIn	0,000	50,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Current IL2:1		0,000	xIn	0,000	50,000	
Current IL3:1		0,000	xIn	0,000	50,000	
Current Io:1		0,000	xIn	0,000	50,000	
Current Io-Calc:1		0,000	xIn	0,000	50,000	
Current Ps-Seq:1		0,000	xIn	0,000	50,000	
Current Ng-Seq:1		0,000	xIn	0,000	50,000	
Max current IL1:2		0,000	xIn	0,000	50,000	
Max current IL2:2		0,000	xIn	0,000	50,000	
Max current IL3:2		0,000	xIn	0,000	50,000	
Max current Io:2		0,000	xIn	0,000	50,000	
Current IL1:2		0,000	xIn	0,000	50,000	
Current IL2:2		0,000	xIn	0,000	50,000	
Current IL3:2		0,000	xIn	0,000	50,000	
Current Io:2		0,000	xIn	0,000	50,000	
Current Io-Calc:2		0,000	xIn	0,000	50,000	
Current Ps-Seq:2		0,000	xIn	0,000	50,000	
Current Ng-Seq:2		0,000	xIn	0,000	50,000	
Max current IL1:3		0,000	xIn	0,000	50,000	
Max current IL2:3		0,000	xIn	0,000	50,000	
Max current IL3:3		0,000	xIn	0,000	50,000	
Max current Io:3		0,000	xIn	0,000	50,000	
Current IL1:3		0,000	xIn	0,000	50,000	
Current IL2:3		0,000	xIn	0,000	50,000	
Current IL3:3		0,000	xIn	0,000	50,000	
Current Io:3		0,000	xIn	0,000	50,000	
Current Io-Calc:3		0,000	xIn	0,000	50,000	
Current Ps-Seq:3		0,000	xIn	0,000	50,000	
Current Ng-Seq:3		0,000	xIn	0,000	50,000	
Voltage UL1:1		0,000	xUn	0,000	4,000	
Voltage UL2:1		0,000	xUn	0,000	4,000	
Voltage UL3:1		0,000	xUn	0,000	4,000	
Voltage U12:1		0,000	xUn	0,000	4,000	
Voltage U23:1		0,000	xUn	0,000	4,000	
Voltage U31:1		0,000	xUn	0,000	4,000	
Voltage Uo:1		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:1		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:1		0,000	xUn	0,000	4,000	
Voltage UL1:2		0,000	xUn	0,000	4,000	
Voltage UL2:2		0,000	xUn	0,000	4,000	
Voltage UL3:2		0,000	xUn	0,000	4,000	
Voltage U12:2		0,000	xUn	0,000	4,000	
Voltage U23:2		0,000	xUn	0,000	4,000	
Voltage U31:2		0,000	xUn	0,000	4,000	
Voltage Uo:2		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:2		0,000	xUn	0,000	4,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage Ps-Seq:2		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:2		0,000	xUn	0,000	4,000	
Voltage UL1:3		0,000	xUn	0,000	4,000	
Voltage UL2:3		0,000	xUn	0,000	4,000	
Voltage UL3:3		0,000	xUn	0,000	4,000	
Voltage UL12:3		0,000	xUn	0,000	4,000	
Voltage UL23:3		0,000	xUn	0,000	4,000	
Voltage UL31:3		0,000	xUn	0,000	4,000	
Voltage Uo:3		0,000	xUn	0,000	4,000	
Voltage Zro-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ps-Seq:3		0,000	xUn	0,000	4,000	
Voltage Ng-Seq:3		0,000	xUn	0,000	4,000	
PTTR thermal level		0,00		0,00	99,99	
I2/I1>(1) rat. I2/I1		0,00	%	0,00	999,99	
Frequency:1		50,00	Hz	0,00	80,00	
Frequency gradient:1		0,00	Hz/s	-10,00	10,00	
Frequency:2		50,00	Hz	0,00	80,00	
Frequency gradient:2		0,00	Hz/s	-10,00	10,00	
Frequency:3		50,00	Hz	0,00	80,00	
Frequency gradient:3		0,00	Hz/s	-10,00	10,00	
Conductance Yo		0,00	mS	-1000,00	1000,00	
Susceptance Yo		0,00	mS	-1000,00	1000,00	
Angle Uo:1 - Io:1		0,00	deg	-180,00	180,00	
Angle U23:1- IL1:1		0,00	deg	-180,00	180,00	
Angle U31:1 - IL2:1		0,00	deg	-180,00	180,00	
Angle U12:1 - IL3:1		0,00	deg	-180,00	180,00	
Angle Uo:2 - Io:2		0,00	deg	-180,00	180,00	
Angle U23:2 - IL1:2		0,00	deg	-180,00	180,00	
Angle U31:2 - IL2:2		0,00	deg	-180,00	180,00	
Angle U12:2 - IL3:2		0,00	deg	-180,00	180,00	
Angle Uo:3 - Io:3		0,00	deg	-180,00	180,00	
Angle U23:3 - IL1:3		0,00	deg	-180,00	180,00	
Angle U31:3 - IL2:3		0,00	deg	-180,00	180,00	
Angle U12:3 - IL3:3		0,00	deg	-180,00	180,00	
Control command						
Control: 0						
Control						
LR state		Remote				
Detached LHMI						
EIHMI1: 1						
EIHMI1						
CONNECTION		False				
Service port IP address		0			20 characters	
Main unit port IP address		0			20 characters	
Setting group: 0						
Setting group						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Outputs						
SG_LOGIC_SEL		False				
SG_1_ACT		False				
SG_2_ACT		False				
SG_3_ACT		False				
SG_4_ACT		False				
SG_5_ACT		False				
SG_6_ACT		False				
Programmable LEDs: 1						
Programmable LEDs						
Inputs						
LED 1						
OK		False				
ALARM		False				
RESET		False				
LED 2						
OK		False				
ALARM		False				
RESET		False				
LED 3						
OK		False				
ALARM		False				
RESET		False				
LED 4						
OK		False				
ALARM		False				
RESET		False				
LED 5						
OK		False				
ALARM		False				
RESET		False				
LED 6						
OK		False				
ALARM		False				
RESET		False				
LED 7						
OK		False				
ALARM		False				
RESET		False				
LED 8						
OK		False				
ALARM		False				
RESET		False				
LED 9						
OK		False				
ALARM		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
RESET		False				
LED 10						
OK		False				
ALARM		False				
RESET		False				
LED 11						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 1		None				
Programmable LED 2		None				
Programmable LED 3		None				
Programmable LED 4		None				
Programmable LED 5		None				
Programmable LED 6		None				
Programmable LED 7		None				
Programmable LED 8		None				
Programmable LED 9		None				
Programmable LED 10		None				
Programmable LED 11		None				
Programmable LEDs: 2						
Programmable LEDs						
Inputs						
LED 12						
OK		False				
ALARM		False				
RESET		False				
LED 13						
OK		False				
ALARM		False				
RESET		False				
LED 14						
OK		False				
ALARM		False				
RESET		False				
LED 15						
OK		False				
ALARM		False				
RESET		False				
LED 16						
OK		False				
ALARM		False				
RESET		False				
LED 17						
OK		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ALARM		False				
RESET		False				
LED 18						
OK		False				
ALARM		False				
RESET		False				
LED 19						
OK		False				
ALARM		False				
RESET		False				
LED 20						
OK		False				
ALARM		False				
RESET		False				
LED 21						
OK		False				
ALARM		False				
RESET		False				
LED 22						
OK		False				
ALARM		False				
RESET		False				
Monitored data						
Programmable LED 12		None				
Programmable LED 13		None				
Programmable LED 14		None				
Programmable LED 15		None				
Programmable LED 16		None				
Programmable LED 17		None				
Programmable LED 18		None				
Programmable LED 19		None				
Programmable LED 20		None				
Programmable LED 21		None				
Programmable LED 22		None				
IED status: 1						
IED status						
CAM						
UAM mode		Local				
CAM server1		Offline				
CAM server2		Offline				
Replication		N.A.				
Last update		0			34 characters	
PKI						
CA Server Status		Offline				
Time synchronization						
PTP P2P delay X1		0	ns	-2147483648	2147483647	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PTP P2P delay X2		0	ns	-2147483648	2147483647	
PTP P2P delay X3		0	ns	-2147483648	2147483647	
Self-supervision						
Warning		All ok				
Internal Fault		All ok				
Boot up time		0			34 characters	
Boot up reason		None				
Device state		on				
Composition changes						
No of comp. changes		0		0	100000	
Setting changes						
Setting changes		0		0	20000	
Setting time		0			34 characters	
SMV accuracy						
SMV Synch accuracy		InternalClock				
Local synch accuracy		0	us	0	1000000000	
Max Dev synch Acc		0	us	0	1000000000	
Information						
HW modules						
Slot B (BIO): 1						
Slot B (BIO)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot C (BIO): 1						
Slot C (BIO)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot D (BIO): 1						
Slot D (BIO)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot E (AIM): 1						
Slot E (AIM)						
Article number		0			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot F (AIM): 1						
Slot F (AIM)						
Article number		0			20 characters	
SW version		-			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot G (PSM): 1						
Slot G (PSM)						
Article number		0			20 characters	
SW version		-			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
EIHMI1: 1						
EIHMI1						
Detached LHMI						
Article number		0			20 characters	
Application version		0			20 characters	
Firmware version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Service port MAC address		0			20 characters	
Main unit port MAC address		0			20 characters	
Slot A1 (ARC): 1						
Slot A1 (ARC)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Slot A2 (COM): 1						
Slot A2 (COM)						
Article number		0			20 characters	
SW version		0			20 characters	
HW revision		0			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Product identifiers: 0						
Product identifiers						
Type		REX640			20 characters	
Product version		0			64 characters	
Serial number		1XXXXXXXXXXX			20 characters	
Production date		0			34 characters	
SW version		X.X			20 characters	
SW date		0			34 characters	
SW number		2RCA057448A			20 characters	
Interface level		0			64 characters	
Order code		XXXXXXXXXXXXXXXXX			20 characters	
Site identifiers: 0						
Site identifiers						
Customer name		0			20 characters	
Street		0			20 characters	
House number		0			20 characters	
ZIP/Postal code		0			20 characters	
City/Province		0			20 characters	
State		0			20 characters	
Country		0			20 characters	
System identifiers: 0						
System identifiers						
Technical key		TIGER			20 characters	
IEC 61850 version		Edition 2			24 characters	
Engineering model		ABB				
HW modules: 0						
HW modules						
Main board						
Article number		2RAAXXXXXX			20 characters	
SW version		A			20 characters	
HW revision		X			20 characters	
Serial number		1XXXXXXXXXXX			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Clear						
Disturbance recorder: 0						
Disturbance recorder						
Disturbance records		Cancel				
Clear: 0						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Clear						
Indications and LEDs		Cancel				
Programmable LEDs		Cancel				
Events		Cancel				
Metering records		Cancel				
Power quality data		Cancel				
FLTRFRC1: 1						
FLTRFRC1						
Fault records		Cancel				
LDPRLRC1: 1						
LDPRLRC1						
Load Profile record		Cancel				
TRPPTRC1: 1						
Master Trip(1)						
Master Trip(1)		Cancel				
SSCBR1: 1						
CBCM(1)						
CBCM(1) acc.energy		Cancel				
CBCM(1) rem.life		Cancel				
CBCM(1) travel times		Cancel				
CBCM(1) spr.charge t		Cancel				
PEMMXU1: 1						
P,E(1)						
P,E(1) acc.energy		Cancel				
Application Configuration						
General						
Settings						
Setting group						
Protection: 0						
Setting group						
Active group		1		1	6	
Protection						
Settings						
Current protection						
50-1; PHIPTOC1: 1						
3I>>>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 2						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operate delay time		250	ms	20	300000	
settingGroup 3						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 4						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 5						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
settingGroup 6						
Start value		3,00	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		250	ms	20	300000	
51-1; PHLPTOC1: 1						
3I>(1)						
Operation		on				
Num of start phases		1 out of 3				
Minimum operate time		250	ms	20	60000	
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	50000,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	6,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 2						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 3						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 4						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 5						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
settingGroup 6						
Start value		0,70	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,150		0,025	15,000	
Operate delay time		40	ms	40	300000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
67-1; DPHLPDOC1: 1						
3I>->(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Allow Non Dir		False				
Min operate current		0,010	xIn	0,010	1,000	
Min operate voltage		0,010	xUn	0,010	1,000	
settingGroup 1						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 2						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 3						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 4						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 5						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 6						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		700	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Reverse				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
67-2; DPHLPDOC2: 2						
3I>->(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Allow Non Dir		False				
Min operate current		0,010	xIn	0,010	1,000	
Min operate voltage		0,010	xUn	0,010	1,000	
settingGroup 1						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 2						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 3						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 4						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 5						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
settingGroup 6						
Start value		0,80	xIn	0,05	10,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage Mem time		40	ms	0	3000	
Directional mode		Forward				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
68; INRPHAR1: 1						
3I2f>(1)						
Operation		off				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 2						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 3						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 4						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 5						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
settingGroup 6						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Min operate current		5	%In	5	500	
51N; EFLPTOC1: 1						
Io>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
settingGroup 1						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,100	xIn	0,010	10,000	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
Voltage protection						
59-1; PHPTOV1: 1						
3U>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		1,20	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		500	ms	40	300000	
Operating curve type		IEC Def. Time				
59-2; PHPTOV2: 2						
3U>(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		1,30	xUn	0,05	1,60	
Time multiplier		1,000		0,025	15,000	
Operate delay time		100	ms	40	300000	
Operating curve type		IEC Def. Time				
27-1; PHPTUV1: 1						
3U<(1)						
Operation		on				
Num of start phases		1 out of 3				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage block value		0,20	xUn	0,05	1,00	
Enable block value		True				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,80	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		2000	ms	20	300000	
Operating curve type		IEC Def. Time				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
27-2; PHPTUV2: 2						
3U<(2)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Curve parameter A		1,000		0,005	200,000	
Curve parameter B		1,00		0,50	100,00	
Curve parameter C		0,0		0,0	1,0	
Curve parameter D		0,000		0,000	60,000	
Curve parameter E		1,000		0,000	3,000	
Voltage block value		0,20	xUn	0,05	1,00	
Enable block value		True				
Voltage selection		phase-to-phase				
Relative hysteresis		4,0	%	1,0	5,0	
settingGroup 1						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 2						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 3						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 4						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 5						
Start value		0,50	xUn	0,05	1,20	
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
settingGroup 6						
Start value		0,50	xUn	0,05	1,20	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Time multiplier		1,000		0,025	15,000	
Operate delay time		200	ms	20	300000	
Operating curve type		IEC Def. Time				
59N-1; ROVPTOV1: 1						
Uo>(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
settingGroup 6						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		500	ms	40	300000	
59N-2; ROVPTOV2: 2						
Uo>(2)						
Operation		on				
Reset delay time		20	ms	0	60000	
settingGroup 1						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 2						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 3						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 4						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 5						
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
settingGroup 6						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value		0,100	xUn	0,010	1,000	
Operate delay time		1000	ms	40	300000	
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Operation		off				
Current value		0,300	xIn	0,050	2,000	
Current value Res		0,30	xIn	0,05	2,00	
CB failure trip mode		1 out of 3				
CB failure mode		Current				
CB fail retrip mode		Off				
Retrip time		120	ms	0	60000	
CB failure delay		240	ms	0	60000	
CB fault delay		5000	ms	0	60000	
Measurement mode		Peak-to-Peak				
Trip pulse time		200	ms	0	60000	
Start latching mode		Rising edge				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CB; ARCSARC2: 21						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ARC(2)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Operation		on				
Sensor supervision		on				
settingGroup 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Light only				
settingGroup 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
settingGroup 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Control						
25; SECRSYN1: 1						
SYNC(1)						
Operation		on				
Synchro check mode		Asynchronous				
Control mode		Continuous				
Dead line value		0,1	xUn	0,1	0,8	
Live line value		0,5	xUn	0,2	1,0	
Dead bus value		0,1	xUn	0,1	0,8	
Live bus value		0,5	xUn	0,2	1,0	
Max energizing V		1,11	xUn	0,50	1,15	
Phase shift		0	deg	-180	180	
Minimum Syn time		10000	ms	0	60000	
Energizing time		100	ms	100	60000	
Closing time of CB		50	ms	40	250	
Voltage source switch		False				
settingGroup 1						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 2						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 3						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 4						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
settingGroup 5						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	
settingGroup 6						
Live dead mode		Not Both Live				
Difference voltage		0,05	xUn	0,01	0,50	
Difference frequency		0,0100	xFn	0,0002	0,1000	
Difference angle		5	deg	5	90	

Settings

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
REF615						
IED Configuration						
HW Configuration						
X110 (BIO-H)_110						
X110 (BIO-H)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input 5 filter time		5	ms	5	1000	
Input 6 filter time		5	ms	5	1000	
Input 7 filter time		5	ms	5	1000	
Input 8 filter time		5	ms	5	1000	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Input 5 inversion		False				
Input 6 inversion		False				
Input 7 inversion		False				
Input 8 inversion		False				
X120 (AIM)_120						
X120 (AIM)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input inversion						
Input 1 inversion		False				
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
X130 (AIM)_130						
X130 (AIM)						
Input filtering						
Input 1 filter time		5	ms	5	1000	
Input 2 filter time		5	ms	5	1000	
Input 3 filter time		5	ms	5	1000	
Input 4 filter time		5	ms	5	1000	
Input inversion						
Input 1 inversion		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Input 2 inversion		False				
Input 3 inversion		False				
Input 4 inversion		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
POSITION		intermediate				
SPCGAPC1: 1						
SPC(1)						
TRIG 1		False				
TRIG 2		False				
TRIG 3		False				
TRIG 4		False				
TRIG 5		False				
TRIG 6		False				
TRIG 7		False				
TRIG 8		False				
TRIG 9		False				
TRIG 10		False				
TRIG 11		False				
TRIG 12		False				
TRIG 13		False				
TRIG 14		False				
TRIG 15		False				
TRIG 16		False				
Measurements						
PEMMXU1: 1						
P,E(1)						
S-kVA		0,0	kVA	-999999,9	999999,9	
P-kW		0,0	kW	-999999,9	999999,9	
Q-kVAr		0,0	kVAr	-999999,9	999999,9	
PF		0,00		-1,00	1,00	
CMMXU1: 1						
3I(1)						
IL1-A		0,00	xIn	0,00	40,00	
IL2-A		0,00	xIn	0,00	40,00	
IL3-A		0,00	xIn	0,00	40,00	
RESCMMXU1: 1						
Io(1)						
Io-A		0,00	xIn	0,00	40,00	
RESVMMXU1: 1						
Uo(1)						
Uo-kV		0,00	xUn	0,00	4,00	
VMMXU1: 1						
3U(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U12-kV		0,00	xUn	0,00	4,00	
U23-kV		0,00	xUn	0,00	4,00	
U31-kV		0,00	xUn	0,00	4,00	
FMMXU1: 1						
f(1)						
f-Hz		50,00	Hz	35,00	75,00	
CSMSQI1: 1						
I1,I2,I0(1)						
NgSeq-A		0,00	xIn	0,00	40,00	
PsSeq-A		0,00	xIn	0,00	40,00	
ZroSeq-A		0,00	xIn	0,00	40,00	
VSMSQI1: 1						
U1,U2,U0(1)						
NgSeq-kV		0,00	xUn	0,00	4,00	
PsSeq-kV		0,00	xUn	0,00	4,00	
ZroSeq-kV		0,00	xUn	0,00	4,00	
Disturbance records						
Disturbance recorder(Disturbance recorder): 0						
Disturbance recorder						
Number of recordings		0		0	100	
Rem. amount of rec.		0		0	100	
Rec. memory used		0	%	0	100	
Trig recording		Cancel				
Time to trigger		0	s	0	604800	
Configuration						
Disturbance recorder: 0						
Disturbance recorder						
General						
Operation		on				
Record length		50	cycles	10	500	
Pre-trg length		50	%	0	100	
Operation mode		Overwrite				
Exclusion time		0	ms	0	1000000	
Storage rate		32 samples / cycle				
Periodic trig time		0	s	0	604800	
Stor. mode periodic		Waveform				
Stor. mode manual		Waveform				
Channel settings						
Analog channel 1						
Operation		on				
Channel selection		IL1				
Channel id text		IL1			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Storage mode		Waveform				
Analog channel 2						
Operation		on				
Channel selection		IL2				
Channel id text		IL2			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 3						
Operation		on				
Channel selection		IL3				
Channel id text		IL3			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 4						
Operation		on				
Channel selection		Io				
Channel id text		Io			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 5						
Operation		on				
Channel selection		Uo				
Channel id text		Uo			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 6						
Operation		on				
Channel selection		U1				
Channel id text		U1			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 7						
Operation		on				
Channel selection		U2				
Channel id text		U2			64 characters	
High trigger level		10,00		0,00	60,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 8						
Operation		on				
Channel selection		U3				
Channel id text		U3			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 9						
Operation		on				
Channel selection		Disabled				
Channel id text		Analog ch 9 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 10						
Operation		on				
Channel selection		Disabled				
Channel id text		Analog ch 10 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 11						
Operation		on				
Channel selection		Disabled				
Channel id text		Analog ch 11 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Analog channel 12						
Operation		on				
Channel selection		Disabled				
Channel id text		Analog ch 12 input			64 characters	
High trigger level		10,00		0,00	60,00	
Low trigger level		0,00		0,00	2,00	
Storage mode		Waveform				
Binary channel 1						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		CB CLOSED			64 characters	
Binary channel 2						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		CB OPEN			64 characters	
Binary channel 3						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		51.S1 START			64 characters	
Binary channel 4						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		51.S1 TRIP			64 characters	
Binary channel 5						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		51.S2 START			64 characters	
Binary channel 6						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		51.S2 TRIP			64 characters	
Binary channel 7						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		50.S3 START			64 characters	
Binary channel 8						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		50.S3 TRIP			64 characters	
Binary channel 9						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		67N.NI START			64 characters	
Binary channel 10						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		67N.NI TRIP			64 characters	
Binary channel 11						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		51.S1 START			64 characters	
Binary channel 12						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		51.S1 TRIP			64 characters	
Binary channel 13						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		51N.S2 START			64 characters	
Binary channel 14						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		51N.S2 TRIP			64 characters	
Binary channel 15						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 15 input			64 characters	
Binary channel 16						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		ARC CB			64 characters	
Binary channel 17						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		ARC CABLE			64 characters	
Binary channel 18						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		ARC BUSBAR			64 characters	
Binary channel 19						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 19 input			64 characters	
Binary channel 20						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 20 input			64 characters	
Binary channel 21						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		27.1 TRIP			64 characters	
Binary channel 22						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		27.1 START			64 characters	
Binary channel 23						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		27.1 TRIP			64 characters	
Binary channel 24						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		27.2 START			64 characters	
Binary channel 25						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		59.1 TRIP			64 characters	
Binary channel 26						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		59.1 START			64 characters	
Binary channel 27						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		59.2 TRIP			64 characters	
Binary channel 28						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		59.2 START			64 characters	
Binary channel 29						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		59N.1 TRIP			64 characters	
Binary channel 30						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		59N.1 START			64 characters	
Binary channel 31						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		59N.2 TRIP			64 characters	
Binary channel 32						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		59N.2 START			64 characters	
Binary channel 33						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 33 input			64 characters	
Binary channel 34						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 34 input			64 characters	
Binary channel 35						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 35 input			64 characters	
Binary channel 36						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 36 input			64 characters	
Binary channel 37						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 37 input			64 characters	
Binary channel 38						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 38 input			64 characters	
Binary channel 39						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 39 input			64 characters	
Binary channel 40						
Operation		on				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		PHIPTOC1_START			64 characters	
Binary channel 41						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		PHIPTOC1_OPERATE			64 characters	
Binary channel 42						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 42 input			64 characters	
Binary channel 43						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 43 input			64 characters	
Binary channel 44						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 44 input			64 characters	
Binary channel 45						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 45 input			64 characters	
Binary channel 46						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 46 input			64 characters	
Binary channel 47						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 47 input			64 characters	
Binary channel 48						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 48 input			64 characters	
Binary channel 49						
Operation		off				
Level trigger mode		Level trigger off				
Storage mode		Waveform				
Channel id text		Binary ch 49 input			64 characters	
Binary channel 50						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 50 input			64 characters	
Binary channel 51						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 51 input			64 characters	
Binary channel 52						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 52 input			64 characters	
Binary channel 53						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 53 input			64 characters	
Binary channel 54						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 54 input			64 characters	
Binary channel 55						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 55 input			64 characters	
Binary channel 56						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 56 input			64 characters	
Binary channel 57						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 57 input			64 characters	
Binary channel 58						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 58 input			64 characters	
Binary channel 59						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 59 input			64 characters	
Binary channel 60						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 60 input			64 characters	
Binary channel 61						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 61 input			64 characters	
Binary channel 62						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 62 input			64 characters	
Binary channel 63						
Operation		off				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				
Channel id text		Binary ch 63 input			64 characters	
Binary channel 64						
Operation		on				
Level trigger mode		Positive or Rising				
Storage mode		Waveform				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Channel id text		Binary ch 64 input			64 characters	
System						
Control(Control): 0						
Control						
Rated frequency		50Hz				
Phase rotation		ABC				
Blocking mode		Freeze timer				
Bay name		REF615			20 characters	
IDMT Sat point		50	I/I>	10	50	
Communication						
Ethernet						
Communication(Communication): 0						
Communication						
Rear port(s)						
IP address		192.168.10 .11				
Subnet mask		255.255.25 5.224				
Default gateway		192.168.10 .30				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
Front port						
IP address		192.168.0. 254				
Mac address		XX-XX-XX-XX-XX-XX			18 characters	
SCHLCCH1(SCHLCCH1): 1						
SCHLCCH1						
Rear port(s)						
Port 1 mode		On				
SCHLCCH2(SCHLCCH2): 2						
SCHLCCH2						
Rear port(s)						
Port 2 mode		On				
SCHLCCH3(SCHLCCH3): 3						
SCHLCCH3						
Rear port(s)						
Port 3 mode		On				
RCHLCCH1(RCHLCCH1): 1						
RCHLCCH1						
Redundancy						
Redundant mode		None				
Modbus						
Modbus(1)(Modbus(1)): 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Modbus(1)						
MBS01						
Operation		on				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
Start delay		4		0	20	
End delay		4		0	20	
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Modbus(2): 2						
Modbus(2)						
MBS02						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
Start delay		4		0	20	
End delay		4		0	20	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Modbus(3)(Modbus(3)): 3						
Modbus(3)						
MBS03						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
Start delay		4		0	20	
End delay		4		0	20	
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Modbus(4): 4						
Modbus(4)						
MBS04						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
Start delay		4		0	20	
End delay		4		0	20	
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
Modbus(5)(Modbus(5)): 5						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Modbus(5)						
MBS05						
Operation		off				
Port		Ethernet - TCP 1				
Mapping selection		1		1	2	
Address		1		1	254	
Link mode		RTU				
TCP port		502		1	65535	
Parity		even				
Start delay		4		0	20	
End delay		4		0	20	
CRC order		Hi-Lo				
Client IP		0.0.0.0				
Write authority		Full access				
Time format		Local				
Event ID selection		Address				
Event buffering		Keep oldest				
Event backoff		200		1	500	
ControlStructPWd 1		****			4 characters	
ControlStructPWd 2		****			4 characters	
ControlStructPWd 3		****			4 characters	
ControlStructPWd 4		****			4 characters	
ControlStructPWd 5		****			4 characters	
ControlStructPWd 6		****			4 characters	
ControlStructPWd 7		****			4 characters	
ControlStructPWd 8		****			4 characters	
MMSLPRT1(MMS): 1						
MMS						
Unit mode		Nominal				
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Operation		on				
Trip pulse time		250	ms	20	60000	
Trip output mode		Non-latched				
Control						
CBXCBR1: 1						
I<->O CB(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation		on				
Select timeout		30000	ms	10000	300000	
Pulse length		200	ms	10	60000	
Operation counter		0		0	10000	
Control model		sbo-with-enhanced-security				
Adaptive pulse		True				
Event delay		200	ms	0	10000	
Operation timeout		500	ms	10	60000	
Identification		CBXCBR1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
General(General): 0						
Control						
General						
LR control		Binary input				
Station authority		L,R				
Control mode		On				
DCSXSWI1: 1						
I<->O DC(1)						
Event delay		30000	ms	0	60000	
Identification		DCSXSWI1 switch position			255 characters	
Vendor		0			20 characters	
Serial number		0			20 characters	
Model		0			20 characters	
HMI(HMI): 0						
HMI						
FB naming convention		IEC61850				
Default view		SLD				
Backlight timeout		3	min	1	60	
Web HMI timeout		15	min	1	60	
SLD symbol format		IEC				
Autoscroll delay		0	s	0	30	
Condition monitoring						
SSCBR1: 1						
CBCM(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation		on				
Acc stop current		10,00	A	5,00	500,00	
Open alarm time		40	ms	0	200	
Close alarm time		40	ms	0	200	
Opening time Cor		10	ms	-100	100	
Closing time Cor		10	ms	-100	100	
Spring charge time		15000	ms	0	60000	
Counter initial Val		0		0	99999	
Alarm Op number		200		0	99999	
Lockout Op number		300		0	99999	
Current exponent		2,00		0,00	2,00	
Difference Cor time		5	ms	-10	10	
Alm Acc currents Pwr		2500,00		0,00	20000,00	
LO Acc currents Pwr		2500,00		0,00	20000,00	
Ini Acc currents Pwr		0,00		0,00	20000,00	
Directional Coef		-1,50		-3,00	-0,50	
Initial CB Rmn life		5000		0	99999	
Rated Op current		1000,00	A	100,00	5000,00	
Rated fault current		5000,00	A	500,00	75000,00	
Op number rated		10000		1	99999	
Op number fault		1000		1	10000	
Life alarm level		500		0	99999	
Pressure alarm time		10	ms	0	60000	
Pres lockout time		10	ms	0	60000	
Inactive Alm days		2000		0	9999	
Ini inactive days		0		0	9999	
Inactive Alm hours		0	h	0	23	
Travel time Clc mode		From Pos to Pos				
TCSSCBR1: 1						
TCS(1)						
Operation		off				
Operate delay time		3000	ms	20	300000	
Reset delay time		1000	ms	20	60000	
TCSSCBR2: 2						
TCS(2)						
Operation		off				
Operate delay time		3000	ms	20	300000	
Reset delay time		1000	ms	20	60000	
SEQSPVC1: 1						
FUSEF(1)						
Operation		off				
Neg Seq current Lev		0,03	xIn	0,03	0,20	
Neg Seq voltage Lev		0,10	xUn	0,03	0,20	
Current change rate		0,15	xIn	0,01	0,50	
Voltage change rate		0,40	xUn	0,25	0,90	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Change rate enable		False				
Min Op voltage delta		0,50	xUn	0,01	1,00	
Min Op current delta		0,10	xIn	0,01	1,00	
Seal in voltage		0,50	xUn	0,01	1,00	
Enable seal in		False				
Current dead Lin Val		0,05	xIn	0,05	1,00	
MDSOPT1: 1						
OPTS(1)						
Operation		on				
Warning value		8000	h	0	299999	
Alarm value		10000	h	0	299999	
Initial value		0	h	0	299999	
Operating time hour		0	h	0	23	
Operating time mode		Immediate				
Time(Time): 0						
Time						
System time						
Time format		24H:MM:SS:MS				
Date format		DD.MM.YYYY				
Date		0			20 characters	
Time		0			20 characters	
Local time offset		0	min	-840	840	
Daylight saving time						
DST in use		True				
DST on time (hours)		2	h	0	23	
DST on time (minutes)		0	min	0	59	
DST on date (day)		1		1	31	
DST on date (month)		May				
DST on day (weekday)		reserved				
DST off time (hours)		2	h	0	23	
DST off time (minutes)		0	min	0	59	
DST off date (day)		25		1	31	
DST off date (month)		September				
DST off day (weekday)		reserved				
DST offset		60	min	-720	720	
SNTP						
IP SNTP primary		10.58.125.165				
IP SNTP secondary		192.168.2.165				
Synchronization						
Synch source		SNTP				
PTP domain ID		0		0	255	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PTP priority 1		128		0	255	
PTP priority 2		128		0	255	
PTP announce mode		Basic IEEE1588				
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Operation		on				
Quantity Sel 1		Disabled				
Quantity Sel 2		Disabled				
Quantity Sel 3		Disabled				
Quantity Sel 4		Disabled				
Quantity Sel 5		Disabled				
Quantity Sel 6		Disabled				
Quantity Sel 7		Disabled				
Quantity Sel 8		Disabled				
Quantity Sel 9		Disabled				
Quantity Sel 10		Disabled				
Quantity Sel 11		Disabled				
Quantity Sel 12		Disabled				
Mem. warning level		0	%	0	100	
Mem. alarm level		0	%	0	100	
Authorization(Authorization): 1						
Authorization						
Security						
Remote Update		Disable				
Authority logging		None				
Passwords						
Remote override		True				
Remote viewer		0			20 characters	
Remote operator		0			20 characters	
Remote engineer		0			20 characters	
Remote administrator		0			20 characters	
Measurements						
CMMXU1: 1						
3I(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
A high high limit		1,40	xIn	0,00	40,00	
A high limit		1,20	xIn	0,00	40,00	
A low limit		0,00	xIn	0,00	40,00	
A low low limit		0,00	xIn	0,00	40,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
A deadband		2500		100	100000	
RESCMMXU1(In(1)): 1						
Io(1)						
Operation		on				
Measurement mode		DFT				
A Hi high limit res		0,20	xIn	0,00	40,00	
A high limit res		0,05	xIn	0,00	40,00	
A deadband res		2500		100	100000	
RESVMMXU1: 1						
Uo(1)						
Operation		on				
Measurement mode		DFT				
V Hi high limit res		0,20	xUn	0,00	4,00	
V high limit res		0,05	xUn	0,00	4,00	
V deadband res		10000		100	100000	
VMMXU1: 1						
3U(1)						
Operation		on				
Measurement mode		DFT				
Num of phases		1 out of 3				
V high high limit		1,40	xUn	0,00	4,00	
V high limit		1,20	xUn	0,00	4,00	
V low limit		0,00	xUn	0,00	4,00	
V low low limit		0,00	xUn	0,00	4,00	
V deadband		10000		100	100000	
FMMXU1: 1						
f(1)						
Operation		on				
F high high limit		60,00	Hz	35,00	75,00	
F high limit		55,00	Hz	35,00	75,00	
F low limit		45,00	Hz	35,00	75,00	
F low low limit		40,00	Hz	35,00	75,00	
F deadband		1000		100	100000	
Def frequency Sel		Nominal				
PEMMXU1: 1						
P,E(1)						
Operation		on				
Power unit Mult		Kilo				
Energy unit Mult		Kilo				
Active power Dir		Forward				
Reactive power Dir		Forward				
Forward Wh Initial		0		0	999999999	
Reverse Wh Initial		0		0	999999999	
Forward VArh Initial		0		0	999999999	
Reverse VArh Initial		0		0	999999999	
CSMSQI1: 1						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
I1,I2,I0(1)						
Operation		on				
Ps Seq A Hi high Lim		1,40	xIn	0,00	40,00	
Ps Seq A high limit		1,20	xIn	0,00	40,00	
Ps Seq A low limit		0,00	xIn	0,00	40,00	
Ps Seq A low low Lim		0,00	xIn	0,00	40,00	
Ps Seq A deadband		2500		100	100000	
Ng Seq A Hi high Lim		0,20	xIn	0,00	40,00	
Ng Seq A High limit		0,05	xIn	0,00	40,00	
Ng Seq A low limit		0,00	xIn	0,00	40,00	
Ng Seq A low low Lim		0,00	xIn	0,00	40,00	
Ng Seq A deadband		2500		100	100000	
Zro A Hi high Lim		0,20	xIn	0,00	40,00	
Zro A High limit		0,05	xIn	0,00	40,00	
Zro A low limit		0,00	xIn	0,00	40,00	
Zro A low low Lim		0,00	xIn	0,00	40,00	
Zro A deadband		2500		100	100000	
VSMSQI1: 1						
U1,U2,U0(1)						
Operation		on				
Ps Seq V Hi high Lim		1,40	xUn	0,00	4,00	
Ps Seq V high limit		1,20	xUn	0,00	4,00	
Ps Seq V low limit		0,00	xUn	0,00	4,00	
Ps Seq V low low Lim		0,00	xUn	0,00	4,00	
Ps Seq V deadband		10000		100	100000	
Ng Seq V Hi high Lim		0,20	xUn	0,00	4,00	
Ng Seq V High limit		0,05	xUn	0,00	4,00	
Ng Seq V low limit		0,00	xUn	0,00	4,00	
Ng Seq V low low Lim		0,00	xUn	0,00	4,00	
Ng Seq V deadband		10000		100	100000	
Zro V Hi high Lim		0,20	xUn	0,00	4,00	
Zro V High limit		0,05	xUn	0,00	4,00	
Zro V low limit		0,00	xUn	0,00	4,00	
Zro V low low Lim		0,00	xUn	0,00	4,00	
Zro V deadband		10000		100	100000	
Demand metering(Demand metering): 0						
Demand metering						
Demand interval		1 minute				
A demand Av mode		Linear				
General(General): 0						
General						
Software reset		Cancel				
Setting group(Setting group): 0						
Setting group						
SG operation mode		Operator				
Fault record						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
FLTRFRC1: 1						
FLTRFRC1						
Operation		on				
Trig mode		From all faults				
A measurement mode		DFT				
Control(Control): 0						
Control						
LHMI						
Close delay mode		Not in use				
Close delay		60	s	5	900	
Generic timers						
TONGAPC1: 1						
TON(1)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TONGAPC2: 2						
TON(2)						
On delay time 1		0	ms	0	3600000	
On delay time 2		0	ms	0	3600000	
On delay time 3		0	ms	0	3600000	
On delay time 4		0	ms	0	3600000	
On delay time 5		0	ms	0	3600000	
On delay time 6		0	ms	0	3600000	
On delay time 7		0	ms	0	3600000	
On delay time 8		0	ms	0	3600000	
TOFGAPC1: 1						
TOF(1)						
Off delay time 1		0	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	
Off delay time 3		0	ms	0	3600000	
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
TOFGAPC2: 2						
TOF(2)						
Off delay time 1		0	ms	0	3600000	
Off delay time 2		0	ms	0	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Off delay time 3		0	ms	0	3600000	
Off delay time 4		0	ms	0	3600000	
Off delay time 5		0	ms	0	3600000	
Off delay time 6		0	ms	0	3600000	
Off delay time 7		0	ms	0	3600000	
Off delay time 8		0	ms	0	3600000	
PTGAPC1: 1						
PT(1)						
Pulse time 1		150	ms	0	3600000	
Pulse time 2		150	ms	0	3600000	
Pulse time 3		250	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
PTGAPC2: 2						
PT(2)						
Pulse time 1		0	ms	0	3600000	
Pulse time 2		0	ms	0	3600000	
Pulse time 3		0	ms	0	3600000	
Pulse time 4		0	ms	0	3600000	
Pulse time 5		0	ms	0	3600000	
Pulse time 6		0	ms	0	3600000	
Pulse time 7		0	ms	0	3600000	
Pulse time 8		0	ms	0	3600000	
I/O modules(I/O modules): 0						
I/O modules						
Common settings						
Threshold voltage		16	Vdc	16	176	
Input osc. level		30	events/s	2	50	
Input osc. hyst		10	events/s	2	50	
Generic logic						
SPCGAPC1: 1						
SPC(1)						
General						
Loc Rem restriction		True				
Output 1						
Operation mode		Pulsed				
Pulse length		100	ms	10	3600000	
Description		REM CLOSE CMD			64 characters	
Output 2						
Operation mode		Pulsed				
Pulse length		100	ms	10	3600000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		REM OPEN CMD			64 characters	
Output 3						
Operation mode		Pulsed				
Pulse length		100	ms	10	3600000	
Description		RESET			64 characters	
Output 4						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 4			64 characters	
Output 5						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 5			64 characters	
Output 6						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 6			64 characters	
Output 7						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 7			64 characters	
Output 8						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 8			64 characters	
Output 9						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 9			64 characters	
Output 10						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 10			64 characters	
Output 11						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 11			64 characters	
Output 12						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 12			64 characters	
Output 13						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 13			64 characters	
Output 14						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 14			64 characters	
Output 15						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 15			64 characters	
Output 16						
Operation mode		Off				
Pulse length		1000	ms	10	3600000	
Description		SPCGAPC 1 Output 16			64 characters	
SRGAPC1: 1						
SR(1)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC2: 2						
SR(2)						
Reset Q1		Cancel				
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
SRGAPC3: 3						
SR(3)						
Reset Q1		Cancel				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Reset Q2		Cancel				
Reset Q3		Cancel				
Reset Q4		Cancel				
Reset Q5		Cancel				
Reset Q6		Cancel				
Reset Q7		Cancel				
Reset Q8		Cancel				
MVGAPC1: 1						
MV(1)						
Output 1						
Description		MVGAPC1 Q1			20 characters	
Output 2						
Description		MVGAPC1 Q2			20 characters	
Output 3						
Description		MVGAPC1 Q3			20 characters	
Output 4						
Description		MVGAPC1 Q4			20 characters	
Output 5						
Description		MVGAPC1 Q5			20 characters	
Output 6						
Description		MVGAPC1 Q6			20 characters	
Output 7						
Description		MVGAPC1 Q7			20 characters	
Output 8						
Description		MVGAPC1 Q8			20 characters	
MVGAPC2: 2						
MV(2)						
Output 1						
Description		MVGAPC2 Q1			20 characters	
Output 2						
Description		MVGAPC2 Q2			20 characters	
Output 3						
Description		MVGAPC2 Q3			20 characters	
Output 4						
Description		MVGAPC2 Q4			20 characters	
Output 5						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Description		MVGAPC2 Q5			20 characters	
Output 6						
Description		MVGAPC2 Q6			20 characters	
Output 7						
Description		MVGAPC2 Q7			20 characters	
Output 8						
Description		MVGAPC2 Q8			20 characters	
Analog inputs						
Current (3I,CT)(Current (3I,CT)): 1						
Current (3I,CT)						
Primary current		2500,0	A	1,0	6000,0	
Secondary current		1A				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Reverse polarity		False				
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (3U,VT)(Voltage (3U,VT)): 1						
Voltage (3U,VT)						
Primary voltage		0,400	kV	0,100	440,000	
Secondary voltage		110	V	60	210	
VT connection		Delta				
Amplitude Corr A		1,0000		0,9000	1,1000	
Amplitude Corr B		1,0000		0,9000	1,1000	
Amplitude Corr C		1,0000		0,9000	1,1000	
Voltage input type		Voltage trafo				
Angle Corr A		0,0000	deg	-8,0000	8,0000	
Angle Corr B		0,0000	deg	-8,0000	8,0000	
Angle Corr C		0,0000	deg	-8,0000	8,0000	
Voltage (Uo,VT)(Voltage (Uo,VT)): 1						
Voltage (Uo,VT)						
Primary voltage		0,230	kV	0,100	440,000	
Secondary voltage		110	V	60	210	
Amplitude Corr		1,0000		0,9000	1,1000	
Angle correction		0,0000	deg	-8,0000	8,0000	
Current (Io,CT)(Current (Io,CT)): 1						
Current (Io,CT)						
Primary current		100,0	A	1,0	6000,0	
Secondary current		1A				
Amplitude Corr		1,0000		0,9000	1,1000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Reverse polarity		False				
Angle correction		0,0000	deg	-8,0000	8,0000	
Programmable LEDs(Programmable LEDs): 1						
Programmable LEDs						
General						
Alarm colour		Red				
LED 1						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 1			64 characters	
LED 2						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 2			64 characters	
LED 3						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 3			64 characters	
LED 4						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 4			64 characters	
LED 5						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 5			64 characters	
LED 6						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 6			64 characters	
LED 7						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 7			64 characters	
LED 8						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 8			64 characters	
LED 9						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 9			64 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
LED 10						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 10			64 characters	
LED 11						
Alarm mode		Follow-S				
Description		Programmable LEDs LED 11			64 characters	
Monitoring						
Communication						
Ethernet						
SCHLCCH1(SCHLCCH1): 1						
SCHLCCH1						
Activity						
CH1LIV		False				
Link statuses						
LNK1LIV		False				
SCHLCCH2(SCHLCCH2): 2						
SCHLCCH2						
Activity						
CH2LIV		False				
Link statuses						
LNK2LIV		False				
SCHLCCH3(SCHLCCH3): 3						
SCHLCCH3						
Activity						
CH3LIV		False				
Link statuses						
LNK3LIV		False				
RCHLCCH1(RCHLCCH1): 1						
RCHLCCH1						
Activity						
CHLIV_A		False				
REDCHLIV_B		False				
Link statuses						
LNKLIV_A		False				
REDLNKLIV_B		False				
Modbus						
Modbus(1)(Modbus(1)): 1						
Modbus(1)						
MBS01						
Status		False				
Reset counters		False				
Received frames		-1		-1	2147483646	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Modbus(2): 2						
Modbus(2)						
MBS02						
Status		False				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Modbus(3): 3						
Modbus(3)						
MBS03						
Status		False				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Modbus(4): 4						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Modbus(4)						
MBS04						
Status		False				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
Modbus(5): 5						
Modbus(5)						
MBS05						
Status		False				
Reset counters		False				
Received frames		-1		-1	2147483646	
Transmitted frames		-1		-1	2147483646	
Transmitted exc A		-1		-1	2147483646	
Transmitted exc B		-1		-1	2147483646	
Checksum errors		-1		-1	2147483646	
CnReject no sockets		-1		-1	2147483646	
CnReject unregistered		-1		-1	2147483646	
MMSLPRT1(MMS): 1						
MMS						
CHLIV		False				
Successful conn.		0		0	10000000	
Failed conn.		0		0	10000000	
Concludes		0		0	10000000	
Sent aborts		0		0	10000000	
Recv. aborts		0		0	10000000	
Sent rejects		0		0	10000000	
Recv. requests		0		0	10000000	
Failed requests		0		0	10000000	
Reads		0		0	10000000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Failed reads		0		0	10000000	
Writes		0		0	10000000	
Failed writes		0		0	10000000	
Reports		0		0	10000000	
Active conn.		0		0	10000000	
Reset counters		False				
Load profile record						
LDPRLRC1: 1						
LDPRLRC1						
Rec. memory used		0	%	0	100	
MEM_WARN		False				
MEM_ALARM		False				
Setting group(Setting group): 0						
Setting group						
Outputs						
SG_LOGIC_SEL		False				
SG_1_ACT		False				
SG_2_ACT		False				
SG_3_ACT		False				
SG_4_ACT		False				
SG_5_ACT		False				
SG_6_ACT		False				
IED status(IED status): 0						
IED status						
Self-supervision						
Warning		All ok				
Internal Fault		All ok				
Boot up time		0			34 characters	
Composition changes						
No of comp. changes		0		0	100000	
Setting changes						
Setting changes		0		0	20000	
Setting time		0			34 characters	
Time synchronization						
Synch source		Not defined				
Synch status		Down				
Synch accuracy		0		0	128	
IEEE 1588						
Grandmaster identity		----------			20 characters	
Grandmaster time Src		Internal oscil.				
Grandmaster accuracy		more than 10 s				
Programmable LEDs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Inputs						
Programmable LEDs(Programmable LEDs): 1						
Programmable LEDs						
LED 1						
OK		False				
ALARM		False				
RESET		False				
LED 2						
OK		False				
ALARM		False				
RESET		False				
LED 3						
OK		False				
ALARM		False				
RESET		False				
LED 4						
OK		False				
ALARM		False				
RESET		False				
LED 5						
OK		False				
ALARM		False				
RESET		False				
LED 6						
OK		False				
ALARM		False				
RESET		False				
LED 7						
OK		False				
ALARM		False				
RESET		False				
LED 8						
OK		False				
ALARM		False				
RESET		False				
LED 9						
OK		False				
ALARM		False				
RESET		False				
LED 10						
OK		False				
ALARM		False				
RESET		False				
LED 11						
OK		False				
ALARM		False				

Attachment: “SG-200N1_400V_A1_Incoming Trasformer”

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
RESET		False				
Control command						
Control(Control): 0						
Control						
LR state		Off				
I/O status						
Trip logic						
TRPPTRC1: 1						
Master Trip(1)						
Inputs						
BLOCK		False				
OPERATE		False				
RST_LKOUT		False				
Outputs						
TRIP		False				
CL_LKOUT		False				
Control						
CBXCBR1: 1						
I<->O CB(1)						
Inputs						
ENA_OPEN		True				
ENA_CLOSE		True				
BLK_OPEN		False				
BLK_CLOSE		False				
SYNC_OK		True				
SYNC_ITL_BYP		False				
Outputs						
SELECTED		False				
EXE_OP		False				
EXE_CL		False				
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
OPEN_ENAD		False				
CLOSE_ENAD		False				
Monitored data						
POSITION		intermediate				
DCSXSWI1: 1						
I<->O DC(1)						
Outputs						
OPENPOS		False				
CLOSEPOS		False				
OKPOS		False				
Monitored data						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
POSITION		intermediate				
Condition monitoring						
SSCBR1: 1						
CBCM(1)						
Inputs						
BLOCK		False				
POSOPEN		False				
POSCLOSE		False				
OPEN_CB_EXE		False				
CLOSE_CB_EXE		False				
PRES_ALM_IN		False				
PRES_LO_IN		False				
SPR_CHR_ST		False				
SPR_CHR		False				
RST_IPOW		False				
RST_CB_WEAR		False				
RST_TRV_T		False				
RST_SPR_T		False				
Outputs						
TRV_T_OP_ALM		False				
TRV_T_CL_ALM		False				
SPR_CHR_ALM		False				
OPR_ALM		False				
OPR_LO		False				
IPOW_ALM		False				
IPOW_LO		False				
CB_LIFE_ALM		False				
MON_ALM		False				
PRES_ALM		False				
PRES_LO		False				
OPENPOS		False				
INVALIDPOS		False				
CLOSEPOS		False				
Monitored data						
T_TRV_OP		0	ms	0	60000	
T_TRV_CL		0	ms	0	60000	
T_SPR_CHR		0,00	s	0,00	99,99	
NO_OPR		0		0	99999	
INA_DAYS		0		0	9999	
CB_LIFE_A		0		-99999	99999	
CB_LIFE_B		0		-99999	99999	
CB_LIFE_C		0		-99999	99999	
IPOW_A		0,000		0,000	30000,000	
IPOW_B		0,000		0,000	30000,000	
IPOW_C		0,000		0,000	30000,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
TCSSCBR1: 1						
TCS(1)						
Inputs						
BLOCK		False				
Outputs						
ALARM		False				
TCSSCBR2(TCM(2)): 2						
TCS(2)						
Inputs						
BLOCK		False				
Outputs						
ALARM		False				
SEQSPVC1: 1						
FUSEF(1)						
Inputs						
BLOCK		False				
CB_CLOSED		False				
DISCON_OPEN		False				
MINCB_OPEN		False				
Outputs						
FUSEF_3PH		False				
FUSEF_U		False				
MDSOPT1: 1						
OPTS(1)						
Inputs						
BLOCK		False				
POS_ACTIVE		False				
RESET		False				
Outputs						
ALARM		False				
WARNING		False				
Monitored data						
OPR_TIME		0	h	0	299999	
Generic logic						
MVGAPC1: 1						
MV(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
MVGAPC2: 2						
MV(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SPCGAPC1: 1						
SPC(1)						
Inputs						
BLOCK		False				
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
IN9		False				
IN10		False				
IN11		False				
IN12		False				
IN13		False				
IN14		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
IN15		False				
IN16		False				
Outputs						
O1		False				
O2		False				
O3		False				
O4		False				
O5		False				
O6		False				
O7		False				
O8		False				
O9		False				
O10		False				
O11		False				
O12		False				
O13		False				
O14		False				
O15		False				
O16		False				
SRGAPC1: 1						
SR(1)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q8		False				
SRGAPC2: 2						
SR(2)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
SRGAPC3: 3						
SR(3)						
Inputs						
S1		False				
R1		False				
S2		False				
R2		False				
S3		False				
R3		False				
S4		False				
R4		False				
S5		False				
R5		False				
S6		False				
R6		False				
S7		False				
R7		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
S8		False				
R8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
Current protection						
INRPHAR1: 1						
3I2f>(1)						
Inputs						
BLOCK		False				
Outputs						
BLK2H		False				
DEFLPDEF1: 1						
Io>->(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
RCA_CTL		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
FAULT_DIR		unknown				
START_DUR		0,00	%	0,00	100,00	
DIRECTION		unknown				
ANGLE_RCA		0,00	deg	-180,00	180,00	
ANGLE		0,00	deg	-180,00	180,00	
I_OPER		0,00	xIn	0,00	40,00	
PHIPTOC1: 1						
3I>>>(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
DPHHPDOC1: 1						
3I>>->(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Inputs						
BLOCK		False				
ENA_MULT		False				
NON_DIR		False				
Outputs						
START		False				
OPERATE		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
FAULT_DIR		unknown				
DIRECTION		unknown				
DIR_A		unknown				
DIR_B		unknown				
DIR_C		unknown				
ANGLE_A		0,00	deg	-180,00	180,00	
ANGLE_B		0,00	deg	-180,00	180,00	
ANGLE_C		0,00	deg	-180,00	180,00	
VMEM_USED		False				
DPHLPDOC1: 1						
3I>->(1)						
Inputs						
BLOCK		False				
ENA_MULT		False				
NON_DIR		False				
Outputs						
OPERATE		False				
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
FAULT_DIR		unknown				
DIRECTION		unknown				
DIR_A		unknown				
DIR_B		unknown				
DIR_C		unknown				
ANGLE_A		0,00	deg	-180,00	180,00	
ANGLE_B		0,00	deg	-180,00	180,00	
ANGLE_C		0,00	deg	-180,00	180,00	
VMEM_USED		False				
DPHLPDOC2: 2						
3I>->(2)						
Inputs						
BLOCK		False				
ENA_MULT		False				
NON_DIR		False				
Outputs						
OPERATE		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
START		False				
Monitored data						
START_DUR		0,00	%	0,00	100,00	
FAULT_DIR		unknown				
DIRECTION		unknown				
DIR_A		unknown				
DIR_B		unknown				
DIR_C		unknown				
ANGLE_A		0,00	deg	-180,00	180,00	
ANGLE_B		0,00	deg	-180,00	180,00	
ANGLE_C		0,00	deg	-180,00	180,00	
VMEM_USED		False				
Binary input values						
X130 (AIM)(X130 (AIM)): 130						
X130 (AIM)						
X130-Input 1		False				
X130-Input 2		False				
X130-Input 3		False				
X130-Input 4		False				
X120 (AIM)(X120 (AIM)): 120						
X120 (AIM)						
X120-Input 1		False				
X120-Input 2		False				
X120-Input 3		False				
X120-Input 4		False				
X110 (BIO-H)(X110 (BIO-H)): 110						
X110 (BIO-H)						
X110-Input 1		False				
X110-Input 2		False				
X110-Input 3		False				
X110-Input 4		False				
X110-Input 5		False				
X110-Input 6		False				
X110-Input 7		False				
X110-Input 8		False				
Binary output values						
X110 (BIO-H)(X110 (BIO-H)): 110						
X110 (BIO-H)						
X110-HSO1		False				
X110-HSO2		False				
X110-HSO3		False				
X100 (PSM)(X100 (PSM)): 100						
X100 (PSM)						
X100-PO1		False				
X100-PO2		False				
X100-SO1		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
X100-SO2		False				
X100-PO3		False				
X100-PO4		False				
Communication						
GSELPRT1(GSE): 1						
GSE						
Outputs						
ALARM		False				
Monitoring						
Reset counters		False				
Received msgs		0		0	10000000	
Transmitted msgs		0		0	10000000	
State changes		0		0	10000000	
SeqNum changes		0		0	10000000	
Test msgs		0		0	10000000	
State warnings		0		0	10000000	
Seq. warnings		0		0	10000000	
Recv. timeouts		0		0	10000000	
ConfRev errors		0		0	10000000	
NdsComm errors		0		0	10000000	
Dataset errors		0		0	10000000	
Measurements						
CMMXU1: 1						
3I(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
I_INST_A		0,00	xIn	0,00	40,00	
I_ANGL_A		0,00	deg	-180,00	180,00	
I_DB_A		0,00	xIn	0,00	40,00	
I_DMD_A		0,00	xIn	0,00	40,00	
I_RANGE_A		normal				
I_INST_B		0,00	xIn	0,00	40,00	
I_ANGL_B		0,00	deg	-180,00	180,00	
I_DB_B		0,00	xIn	0,00	40,00	
I_DMD_B		0,00	xIn	0,00	40,00	
I_RANGE_B		normal				
I_INST_C		0,00	xIn	0,00	40,00	
I_ANGL_C		0,00	deg	-180,00	180,00	
I_DB_C		0,00	xIn	0,00	40,00	
I_DMD_C		0,00	xIn	0,00	40,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
I_RANGE_C		normal				
PEMMXU1: 1						
P,E(1)						
Inputs						
RSTACM		False				
Monitored data						
S_INST		0,0	kVA	-999999,9	999999,9	
S_DB		0,0	kVA	-999999,9	999999,9	
S_DMD		0,0	kVA	-999999,9	999999,9	
P_INST		0,0	kW	-999999,9	999999,9	
P_DB		0,0	kW	-999999,9	999999,9	
P_DMD		0,0	kW	-999999,9	999999,9	
Q_INST		0,0	kVAr	-999999,9	999999,9	
Q_DB		0,0	kVAr	-999999,9	999999,9	
Q_DMD		0,0	kVAr	-999999,9	999999,9	
PF_INST		0,00		-1,00	1,00	
PF_DB		0,00		-1,00	1,00	
PF_DMD		0,00		-1,00	1,00	
EA_RV_ACM		0	kWh	0	999999999	
ER_RV_ACM		0	kVArh	0	999999999	
EA_FWD_ACM		0	kWh	0	999999999	
ER_FWD_ACM		0	kVArh	0	999999999	
RESCMMXU1: 1						
Io(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
I_INST_RES		0,00	xIn	0,00	40,00	
I_ANGL_RES		0,00	deg	-180,00	180,00	
I_DB_RES		0,00	xIn	0,00	40,00	
I_DMD_RES		0,00	xIn	0,00	40,00	
I_RANGE_RES		normal				
RESVMMXU1: 1						
Uo(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
Monitored data						
U_INST_RES		0,00	xUn	0,00	4,00	
U_ANGL_RES		0,00	deg	-180,00	180,00	
U_DB_RES		0,00	xUn	0,00	4,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
U_DMD_RES		0,00	xUn	0,00	4,00	
U_RANGE_RES		normal				
VMMXU1: 1						
3U(1)						
Inputs						
BLOCK		False				
Outputs						
HIGH_ALARM		False				
HIGH_WARN		False				
LOW_WARN		False				
LOW_ALARM		False				
Monitored data						
U_INST_AB		0,00	xUn	0,00	4,00	
U_ANGL_AB		0,00	deg	-180,00	180,00	
U_DB_AB		0,00	xUn	0,00	4,00	
U_DMD_AB		0,00	xUn	0,00	4,00	
U_RANGE_AB		normal				
U_INST_BC		0,00	xUn	0,00	4,00	
U_ANGL_BC		0,00	deg	-180,00	180,00	
U_DB_BC		0,00	xUn	0,00	4,00	
U_DMD_BC		0,00	xUn	0,00	4,00	
U_RANGE_BC		normal				
U_INST_CA		0,00	xUn	0,00	4,00	
U_ANGL_CA		0,00	deg	-180,00	180,00	
U_DB_CA		0,00	xUn	0,00	4,00	
U_DMD_CA		0,00	xUn	0,00	4,00	
U_RANGE_CA		normal				
U_INST_A		0,00	xUn	0,00	5,00	
U_ANGL_A		0,00	deg	-180,00	180,00	
U_DMD_A		0,00	xUn	0,00	5,00	
U_INST_B		0,00	xUn	0,00	5,00	
U_ANGL_B		0,00	deg	-180,00	180,00	
U_DMD_B		0,00	xUn	0,00	5,00	
U_INST_C		0,00	xUn	0,00	5,00	
U_ANGL_C		0,00	deg	-180,00	180,00	
U_DMD_C		0,00	xUn	0,00	5,00	
CSMSQI1: 1						
I1,I2,I0(1)						
Monitored data						
I2_INST		0,00	xIn	0,00	40,00	
I2_ANGL		0,00	deg	-180,00	180,00	
I2_DB		0,00	xIn	0,00	40,00	
I2_RANGE		normal				
I1_INST		0,00	xIn	0,00	40,00	
I1_ANGL		0,00	deg	-180,00	180,00	
I1_DB		0,00	xIn	0,00	40,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
I1_RANGE		normal				
I0_INST		0,00	xIn	0,00	40,00	
I0_ANGL		0,00	deg	-180,00	180,00	
I0_DB		0,00	xIn	0,00	40,00	
I0_RANGE		normal				
VSMSQI1: 1						
U1,U2,U0(1)						
Monitored data						
U2_INST		0,00	xUn	0,00	4,00	
U2_ANGL		0,00	deg	-180,00	180,00	
U2_DB		0,00	xUn	0,00	4,00	
U2_RANGE		normal				
U1_INST		0,00	xUn	0,00	4,00	
U1_ANGL		0,00	deg	-180,00	180,00	
U1_DB		0,00	xUn	0,00	4,00	
U1_RANGE		normal				
U0_INST		0,00	xUn	0,00	4,00	
U0_ANGL		0,00	deg	-180,00	180,00	
U0_DB		0,00	xUn	0,00	4,00	
U0_RANGE		normal				
FMMXU1: 1						
f(1)						
Monitored data						
F_INST		50,00	Hz	35,00	75,00	
F_DB		50,00	Hz	35,00	75,00	
F_RANGE		normal				
Other protection						
CCBRBRF1: 1						
3I>/Io>BF(1)						
Inputs						
BLOCK		False				
START		False				
POSCLOSE		False				
CB_FAULT		False				
Outputs						
CB_FAULT_AL		False				
TRBU		False				
TRRET		False				
ARCSARC1: 11						
ARC(1)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ARC_FLT_DET		False				
ARCSARC2: 21						
ARC(2)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
ARCSARC3: 31						
ARC(3)						
Inputs						
BLOCK		False				
REM_FLT_ARC		False				
OPR_MODE		False				
Outputs						
OPERATE		False				
ARC_FLT_DET		False				
Generic timers						
PTGAPC1: 1						
PT(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
PTGAPC2: 2						
PT(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
TOFGAPC1: 1						
TOF(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
TOFGAPC2: 2						
TOF(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
TONGAPC1: 1						
TON(1)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				
Q7		False				
Q8		False				
TONGAPC2: 2						
TON(2)						
Inputs						
IN1		False				
IN2		False				
IN3		False				
IN4		False				
IN5		False				
IN6		False				
IN7		False				
IN8		False				
Outputs						
Q1		False				
Q2		False				
Q3		False				
Q4		False				
Q5		False				
Q6		False				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Q7		False				
Q8		False				
Analog inputs						
Current (3I,CT)(Current (3I,CT)): 1						
Current (3I,CT)						
ALARM		False				
WARNING		False				
Current (Io,CT)(Current (Io,CT)): 1						
Current (Io,CT)						
ALARM		False				
WARNING		False				
Voltage (Uo,VT)(Voltage (Uo,VT)): 1						
Voltage (Uo,VT)						
ALARM		False				
WARNING		False				
Voltage (3U,VT)(Voltage (3U,VT)): 1						
Voltage (3U,VT)						
Inputs						
MINCB_OPEN		False				
Outputs						
ALARM		False				
WARNING		False				
FB status						
INRPHAR1: 1						
3I2f>(1)						
3I2f>(1)		on				
DEFLPDEF1: 1						
Io>->(1)						
Io>->(1)		on				
PHIPTOC1: 1						
3I>>>(1)						
3I>>>(1)		on				
DPHHPDOC1: 1						
3I>>->(1)						
3I>>->(1)		on				
DPHLPDOC1: 1						
3I>->(1)						
3I>->(1)		on				
DPHLPDOC2: 2						
3I>->(2)						
3I>->(2)		on				
CCBRBRF1: 1						
3I>/Io>BF(1)						
3I>/Io>BF(1)		on				
ARCSARC1: 11						
ARC(1)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
ARC(1)		on				
ARCSARC2: 21						
ARC(2)						
ARC(2)		on				
ARCSARC3: 31						
ARC(3)						
ARC(3)		on				
TRPPTRC1: 1						
Master Trip(1)						
Master Trip(1)		on				
SSCBR1: 1						
CBCM(1)						
CBCM(1)		on				
TCSSCBR1: 1						
TCS(1)						
TCS(1)		on				
TCSSCBR2: 2						
TCS(2)						
TCS(2)		on				
SEQSPVC1: 1						
FUSEF(1)						
FUSEF(1)		on				
MDSOPT1: 1						
OPTS(1)						
OPTS(1)		on				
Recorded data						
Measurements						
CMMXU1: 1						
3I(1)						
Max demand IL1		0,00	xIn	0,00	40,00	
Max demand IL2		0,00	xIn	0,00	40,00	
Max demand IL3		0,00	xIn	0,00	40,00	
Min demand IL1		0,00	xIn	0,00	40,00	
Min demand IL2		0,00	xIn	0,00	40,00	
Min demand IL3		0,00	xIn	0,00	40,00	
Time max demand IL1		0			34 characters	
Time max demand IL2		0			34 characters	
Time max demand IL3		0			34 characters	
Time min demand IL1		0			34 characters	
Time min demand IL2		0			34 characters	
Time min demand IL3		0			34 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
PEMMXU1: 1						
P,E(1)						
Max demand S		0,0	kVA	-999999,9	999999,9	
Min demand S		0,0	kVA	-999999,9	999999,9	
Max demand P		0,0	kW	-999999,9	999999,9	
Min demand P		0,0	kW	-999999,9	999999,9	
Max demand Q		0,0	kVAr	-999999,9	999999,9	
Min demand Q		0,0	kVAr	-999999,9	999999,9	
Time max dmd S		0			34 characters	
Time min dmd S		0			34 characters	
Time max dmd P		0			34 characters	
Time min dmd P		0			34 characters	
Time max dmd Q		0			34 characters	
Time min dmd Q		0			34 characters	
RESCMMXU1: 1						
Io(1)						
Max demand Io		0,00	xIn	0,00	40,00	
Min demand Io		0,00	xIn	0,00	40,00	
Time max demand Io		0			34 characters	
Time min demand Io		0			34 characters	
FLTRFRC1: 1						
FLTRFRC1						
Fault record						
Fault number		0		0	999999	
Time and date		0			34 characters	
Protection		Unknown				
Start duration		0,00	%	0,00	100,00	
Operate time		0,000	s	0,000	999999,999	
Breaker clear time		0,000	s	0,000	3,000	
Active group		1		1	6	
Shot pointer		1		1	7	
Max current IL1		0,000	xIn	0,000	50,000	
Max current IL2		0,000	xIn	0,000	50,000	
Max current IL3		0,000	xIn	0,000	50,000	
Max current Io		0,000	xIn	0,000	50,000	
Current IL1		0,000	xIn	0,000	50,000	
Current IL2		0,000	xIn	0,000	50,000	
Current IL3		0,000	xIn	0,000	50,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Current Io		0,000	xIn	0,000	50,000	
Current Io-Calc		0,000	xIn	0,000	50,000	
Current Ps-Seq		0,000	xIn	0,000	50,000	
Current Ng-Seq		0,000	xIn	0,000	50,000	
Voltage UL1		0,000	xUn	0,000	4,000	
Voltage UL2		0,000	xUn	0,000	4,000	
Voltage UL3		0,000	xUn	0,000	4,000	
Voltage U12		0,000	xUn	0,000	4,000	
Voltage U23		0,000	xUn	0,000	4,000	
Voltage U31		0,000	xUn	0,000	4,000	
Voltage Uo		0,000	xUn	0,000	4,000	
Voltage Zro-Seq		0,000	xUn	0,000	4,000	
Voltage Ps-Seq		0,000	xUn	0,000	4,000	
Voltage Ng-Seq		0,000	xUn	0,000	4,000	
PTTR thermal level		0,00		0,00	99,99	
I2/I1>(1) rat. I2/I1		0,00	%	0,00	999,99	
Frequency		50,00	Hz	30,00	80,00	
Frequency gradient		0,00	Hz/s	-10,00	10,00	
Angle Uo - Io		0,00	deg	-180,00	180,00	
Angle U23 - IL1		0,00	deg	-180,00	180,00	
Angle U31 - IL2		0,00	deg	-180,00	180,00	
Angle U12 - IL3		0,00	deg	-180,00	180,00	
Information						
Product identifiers(Product identifiers): 0						
Product identifiers						
Type		REF615			20 characters	
Product version		5.0 FP1			64 characters	
Serial number		1XXXXXXXXXXX			20 characters	
Order code		XXXXXXXXXXXXXXXX			20 characters	
Production date		0			34 characters	
Configuration name		FE06			20 characters	
SW version		X.X			20 characters	
SW date		0			34 characters	
SW number		2RCA035017E			20 characters	
HW revision		X			20 characters	
Site identifiers(Site identifiers): 0						
Site identifiers						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Customer name		0			20 characters	
Street		0			20 characters	
House number		0			20 characters	
ZIP/Postal code		0			20 characters	
City/Province		0			20 characters	
State		0			20 characters	
Country		0			20 characters	
System identifiers(System identifiers): 0						
System identifiers						
Technical key		TIGER			20 characters	
IEC 61850 version		Edition 2			24 characters	
HW modules(HW modules): 0						
HW modules						
Main board						
Article number		2RAAXXXXXX			20 characters	
SW version		A			20 characters	
HW revision		X			20 characters	
Serial number		1XXXXXXXXXX			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
LHMI						
Article number		2RAAXXXXXX			20 characters	
SW version		A			20 characters	
HW revision		X			20 characters	
Serial number		1XXXXXXXXXX			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
HW modules						
X110 (BIO-H)(X110 (BIO-H)): 110						
X110 (BIO-H)						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Article number		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
X100 (PSM)(X100 (PSM)): 100						
X100 (PSM)						
Article number		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
X130 (AIM)(X130 (AIM)): 130						
X130 (AIM)						
Article number		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
X120 (AIM)(X120 (AIM)): 120						
X120 (AIM)						
Article number		0			20 characters	
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
X000 (COM)(X000 (COM)): 90						
X000 (COM)						
Article number		0			20 characters	
SW version		-			20 characters	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
HW revision		0			20 characters	
Serial number		0			20 characters	
Manufacturing date		0			34 characters	
Test date		0			34 characters	
Clear						
Disturbance recorder: 0						
Disturbance recorder						
Disturbance records		Cancel				
Clear(Clear): 0						
Clear						
Indications and LEDs		Cancel				
Programmable LEDs		Cancel				
Events		Cancel				
Metering records		Cancel				
Power quality data		Cancel				
FLTRFRC1: 1						
FLTRFRC1						
Fault records		Cancel				
LDPRLRC1: 1						
LDPRLRC1						
Load Profile record		Cancel				
SSCBR1: 1						
CBCM(1)						
CBCM(1) acc.energy		Cancel				
CBCM(1) rem.life		Cancel				
CBCM(1) travel times		Cancel				
CBCM(1) spr.charge t		Cancel				
PEMMXU1: 1						
P,E(1)						
P,E(1) acc.energy		Cancel				
MDSOPT1: 1						
OPTS(1)						
OPTS(1) operation t		Cancel				
Application Configuration						
General						
Settings						
Setting group						
Protection: 0						
Setting group						
Active group		1		1	6	
Protection						
Settings						
Current protection						

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
68; INRPHAR1(68(1)): 1						
3I2f>(1)						
Operation		off				
Reset delay time		20	ms	0	60000	
Setting Group 1						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Setting Group 2						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Setting Group 3						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Setting Group 4						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Setting Group 5						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
Setting Group 6						
Start value		20	%	5	100	
Operate delay time		20	ms	20	60000	
64; DEFLPDEF1: 1						
Io>->(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
Minimum operate time		50	ms	50	60000	
Allow Non Dir		True				
Measurement mode		DFT				
Min operate current		0,005	xIn	0,005	1,000	
Min operate voltage		0,01	xUn	0,01	1,00	
Correction angle		0,0	deg	0,0	10,0	
Pol reversal		False				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Io signal Sel		Calculated Io				
Uo signal Sel		Calculated Uo				
Pol quantity		Zero seq. volt.				
Setting Group 1						
Start value		0,150	xIn	0,010	5,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		0,12		0,05	15,00	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
Operate delay time		1000	ms	50	200000	
Operation mode		Phase angle				
Characteristic angle		-90	deg	-179	180	
Max forward angle		80	deg	0	180	
Max reverse angle		80	deg	0	180	
Min forward angle		80	deg	0	180	
Min reverse angle		80	deg	0	180	
Voltage start value		0,010	xUn	0,010	1,000	
Enable voltage limit		False				
Setting Group 2						
Start value		0,150	xIn	0,010	5,000	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		0,12		0,05	15,00	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
Operate delay time		1000	ms	50	200000	
Operation mode		Phase angle				
Characteristic angle		-90	deg	-179	180	
Max forward angle		80	deg	0	180	
Max reverse angle		80	deg	0	180	
Min forward angle		80	deg	0	180	
Min reverse angle		80	deg	0	180	
Voltage start value		0,010	xUn	0,010	1,000	
Enable voltage limit		False				
Setting Group 3						
Start value		0,150	xIn	0,010	5,000	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		0,12		0,05	15,00	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
Operate delay time		1000	ms	50	200000	
Operation mode		Phase angle				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Characteristic angle		-90	deg	-179	180	
Max forward angle		80	deg	0	180	
Max reverse angle		80	deg	0	180	
Min forward angle		80	deg	0	180	
Min reverse angle		80	deg	0	180	
Voltage start value		0,010	xUn	0,010	1,000	
Enable voltage limit		False				
Setting Group 4						
Start value		0,150	xIn	0,010	5,000	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		0,12		0,05	15,00	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
Operate delay time		1000	ms	50	200000	
Operation mode		Phase angle				
Characteristic angle		-90	deg	-179	180	
Max forward angle		80	deg	0	180	
Max reverse angle		80	deg	0	180	
Min forward angle		80	deg	0	180	
Min reverse angle		80	deg	0	180	
Voltage start value		0,010	xUn	0,010	1,000	
Enable voltage limit		False				
Setting Group 5						
Start value		0,150	xIn	0,010	5,000	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		0,12		0,05	15,00	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
Operate delay time		1000	ms	50	200000	
Operation mode		Phase angle				
Characteristic angle		-90	deg	-179	180	
Max forward angle		80	deg	0	180	
Max reverse angle		80	deg	0	180	
Min forward angle		80	deg	0	180	
Min reverse angle		80	deg	0	180	
Voltage start value		0,010	xUn	0,010	1,000	
Enable voltage limit		False				
Setting Group 6						
Start value		0,150	xIn	0,010	5,000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		0,12		0,05	15,00	
Operating curve type		IEC Norm. inv.				
Type of reset curve		Immediate				
Operate delay time		1000	ms	50	200000	
Operation mode		Phase angle				
Characteristic angle		-90	deg	-179	180	
Max forward angle		80	deg	0	180	
Max reverse angle		80	deg	0	180	
Min forward angle		80	deg	0	180	
Min reverse angle		80	deg	0	180	
Voltage start value		0,010	xUn	0,010	1,000	
Enable voltage limit		False				
PHIPTOC1: 1						
3I>>>(1)						
Operation		on				
Num of start phases		1 out of 3				
Reset delay time		20	ms	0	60000	
Setting Group 1						
Start value		2,30	xIn	1,00	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	200000	
Setting Group 2						
Start value		2,30	xIn	1,00	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	200000	
Setting Group 3						
Start value		2,30	xIn	1,00	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	200000	
Setting Group 4						
Start value		2,30	xIn	1,00	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	200000	
Setting Group 5						
Start value		2,30	xIn	1,00	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	200000	
Setting Group 6						
Start value		2,30	xIn	1,00	40,00	
Start value Mult		1,0		0,8	10,0	
Operate delay time		50	ms	20	200000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
50-1; DPHHPDOC1: 1						
3I>>->(1)						
Operation		on				
Reset delay time		20	ms	0	60000	
Minimum operate time		20	ms	20	60000	
Allow Non Dir		True				
Measurement mode		DFT				
Min operate current		0,01	xIn	0,01	1,00	
Min operate voltage		0,01	xUn	0,01	1,00	
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Num of start phases		1 out of 3				
Setting Group 1						
Start value		2,30	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		1,00		0,05	15,00	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Operate delay time		300	ms	40	200000	
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Voltage Mem time		40	ms	0	3000	
Pol quantity		Cross pol				
Setting Group 2						
Start value		2,30	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		1,00		0,05	15,00	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Operate delay time		300	ms	40	200000	
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Voltage Mem time		40	ms	0	3000	
Pol quantity		Cross pol				
Setting Group 3						
Start value		2,30	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		1,00		0,05	15,00	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Operate delay time		300	ms	40	200000	
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Voltage Mem time		40	ms	0	3000	
Pol quantity		Cross pol				
Setting Group 4						
Start value		2,30	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		1,00		0,05	15,00	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Operate delay time		300	ms	40	200000	
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Voltage Mem time		40	ms	0	3000	
Pol quantity		Cross pol				
Setting Group 5						
Start value		2,30	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		1,00		0,05	15,00	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Operate delay time		300	ms	40	200000	
Characteristic angle		60	deg	-179	180	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Voltage Mem time		40	ms	0	3000	
Pol quantity		Cross pol				
Setting Group 6						
Start value		2,30	xIn	0,10	40,00	
Start value Mult		1,0		0,8	10,0	
Directional mode		Non-directional				
Time multiplier		1,00		0,05	15,00	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Operate delay time		300	ms	40	200000	
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Voltage Mem time		40	ms	0	3000	
Pol quantity		Cross pol				
51; DPHLPDOC1(67-1(1)): 1						
3I>->(1)						
Operation		on				
Num of start phases		1 out of 3				
Minimum operate time		300	ms	20	60000	
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Allow Non Dir		True				
Min operate current		0,01	xIn	0,01	1,00	
Min operate voltage		0,01	xUn	0,01	1,00	
Setting Group 1						
Start value		0,88	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,25		0,05	15,00	
Operate delay time		16000	ms	40	200000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 2						
Start value		0,88	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,25		0,05	15,00	
Operate delay time		16000	ms	40	200000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 3						
Start value		0,88	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,25		0,05	15,00	
Operate delay time		16000	ms	40	200000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 4						
Start value		0,88	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,25		0,05	15,00	
Operate delay time		16000	ms	40	200000	
Operating curve type		IEC inv.				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 5						
Start value		0,88	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,25		0,05	15,00	
Operate delay time		16000	ms	40	200000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 6						
Start value		0,88	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		0,25		0,05	15,00	
Operate delay time		16000	ms	40	200000	
Operating curve type		IEC inv.				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
50; DPHLPDOC2: 2						
3I>->(2)						
Operation		on				
Num of start phases		1 out of 3				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Minimum operate time		20	ms	20	60000	
Reset delay time		20	ms	0	60000	
Measurement mode		DFT				
Curve parameter A		28,2000		0,0086	120,0000	
Curve parameter B		0,1217		0,0000	0,7120	
Curve parameter C		2,00		0,02	2,00	
Curve parameter D		29,10		0,46	30,00	
Curve parameter E		1,0		0,0	1,0	
Allow Non Dir		True				
Min operate current		0,01	xIn	0,01	1,00	
Min operate voltage		0,01	xUn	0,01	1,00	
Setting Group 1						
Start value		0,55	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,00		0,05	15,00	
Operate delay time		300	ms	40	200000	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 2						
Start value		0,55	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,00		0,05	15,00	
Operate delay time		300	ms	40	200000	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 3						
Start value		0,55	xIn	0,05	5,00	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,00		0,05	15,00	
Operate delay time		300	ms	40	200000	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 4						
Start value		0,55	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,00		0,05	15,00	
Operate delay time		300	ms	40	200000	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 5						
Start value		0,55	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,00		0,05	15,00	
Operate delay time		300	ms	40	200000	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Setting Group 6						
Start value		0,55	xIn	0,05	5,00	
Start value Mult		1,0		0,8	10,0	
Time multiplier		1,00		0,05	15,00	
Operate delay time		300	ms	40	200000	
Operating curve type		IEC Def. Time				
Type of reset curve		Immediate				
Voltage Mem time		40	ms	0	3000	
Directional mode		Non-directional				
Characteristic angle		60	deg	-179	180	
Max forward angle		80	deg	0	90	
Max reverse angle		80	deg	0	90	
Min forward angle		80	deg	0	90	
Min reverse angle		80	deg	0	90	
Pol quantity		Cross pol				
Other protection						
BF; CCBRBRF1: 1						
3I>/Io>BF(1)						
Operation		off				
Current value		0,30	xIn	0,05	2,00	
Current value Res		0,30	xIn	0,05	2,00	
CB failure trip mode		1 out of 4				
CB failure mode		Both				
CB fail retrip mode		Off				
Retrip time		120	ms	0	60000	
CB failure delay		240	ms	0	60000	
CB fault delay		5000	ms	0	60000	
Measurement mode		Peak-to-Peak				
Trip pulse time		150	ms	0	60000	
Start latching mode		Rising edge				
ARC BUSBAR; ARCSARC1: 11						
ARC(1)						
Operation		on				
Setting Group 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Setting Group 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CB; ARCSARC2: 21						
ARC(2)						
Operation		on				
Setting Group 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
ARC CABLE; ARCSARC3: 31						
ARC(3)						
Operation		on				

Group / Parameter Name	IED Value	PC Value	Unit	Min	Max	Format
Setting Group 1						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 2						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 3						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 4						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 5						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				
Setting Group 6						
Phase start value		2,50	xIn	0,50	40,00	
Ground start value		0,20	xIn	0,05	8,00	
Operation mode		Light only				